

COUNTRY LIFE

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VAL L'ESTRANGE.

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COUNTRY LIFE

THE JOURNAL FOR ALL INTERESTED IN
COUNTRY LIFE & COUNTRY PURSUITS

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WOMEN AND THE LAND

IN another part of the paper, Lady Londonderry, with the greatest common-sense and practical ability, has set forth the case for enlisting the services of women on the land. She has very wisely avoided any assertion or tone that might lead to controversy. Whether women should or should not make up their minds to work permanently on the land is a question on which she does not touch. Her point is that a crisis exists at the present moment in which it is absolutely necessary for the well-being of the country that the greatest possible amount of food should be raised from the soil. Lady Londonderry bases her appeal for feminine help on the ground that this is the only reserve of supply. It has been argued by many farmers that enlistment should not go on in the rural districts, but that young men should be encouraged to remain at the plough, as the cultivation of foodstuffs is a matter of the highest importance. But if it is at all possible to get the work done without the young men, it is essential to do so, because every week makes it plainer and more plain that every possible recruit will be needed if we are to overcome the Germans within any reasonable time. The way to shorten the war is to pour on to the Continent an abundance of soldiers and an abundance of munitions. In the meantime agriculture must do the best it can, and a duty lies upon the women to come forward with their help. Not that Lady

Londonderry would impose this burden upon every member of her sex. Some are physically unfit to undertake it; to others it is naturally repugnant; and, again, there are many who have to perform duties that cannot be neglected without prejudice to the national prosperity. On the other hand, there are many women who are fitted for farm work. The hours of labour are not too long for them, and we know on the best of evidence that women farm servants can be, and are, healthy and efficient. In Scotland and in the North of England a great deal of the labour is already done by them, and done in a manner that gives entire satisfaction.

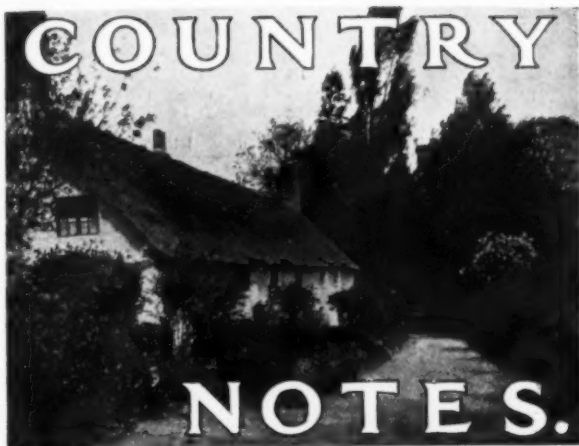
Lady Londonderry does not picture the work in roseate colours. Those women who are at present employed in town offices and shops would be well advised to stick to what they are doing. They will obviously be of the greatest service if they volunteer for work to which they have been accustomed. Nor does she wax very enthusiastic over those townswomen who profess a love of country pursuits. Many of them know the rural districts only in summer and holiday time, and Lady Londonderry, warns them that it is not always summer and the sun is not always shining. The wind can be cold, the roads muddy and the nights long. But if a woman knows all this and is willing to face it, she may be of very great service in the country. Evidently she expects much, and with good reason, from the girls taught at the women's agricultural colleges. A great number of very efficient dairy workers, milkers, poultry keepers, gardeners and bee-keepers have been turned out of these institutions, and they certainly ought to be in their element increasing the volume of food for national purposes. The countrywoman living in town, too, in many cases longs to be back in the country, and this is a very excellent opportunity for gratifying the desire. But, of course, the mainstay of the movement must be found in those women who have been born and bred in the country and have never left it. Whether they have been accustomed to work themselves or not, they know what has to be done and are in a position to make themselves efficient at a minimum of trouble.

Thus are set forth the resources of woman labour on which it is possible for farmers to call. The matter of organisation is, however, one that will most intimately affect the readers of this journal. Many of our women subscribers are not themselves very fit to undertake agricultural work, but there can be few who are not able to enlist the services of others. We hope that Lady Londonderry, who seems to be very practical on the subject, will not under-estimate the great value of organisation. What is needed is that one enthusiastic worker should be found in every locality, and that she should arrange for the co-operation of others in a similar position. In this way it will be possible at a thousand different centres to enrol volunteers and so get up a brigade of women farm workers that will be sufficient to see the crops through this year. There is very little time to be lost. Work on the farms is beginning to press very heavily. The Board of Agriculture has information that many herds of dairy cattle have been sold because milkers are not available. Here is one direction, then, in which feminine activity may find abundance of scope. Hoeing, weeding and turnip sowing are now proceeding apace, and with a little instruction any healthy girl could assist greatly in these operations. Hay harvest will be upon us in the course of a week or two, and here women have been accustomed to work from time immemorial. Following that comes the corn harvest and so on. As Lady Londonderry says, a number of other problems arise out of this one, and will have to be settled. There is, for instance, the housing question, which will have to be solved. Women workers must be properly lodged and take their place in village life.

Our Frontispiece

WE reproduce with this number a portrait of Miss Rachel Butler, younger daughter of Lord and Lady Arthur Butler, whose engagement is announced to Captain Edward Egerton, 17th Lancers, eldest son of Mr. Charles Egerton and Lady Mabelle Egerton, and grandson of Lord Brassey.

* * * It is particularly requested that no permissions to photograph houses, gardens or livestock on behalf of COUNTRY LIFE be granted except when direct application is made from the offices of the paper. When such requests are received, the Editor would esteem the kindness of readers if they would forward the correspondence at once to him.



NO fault can be found with the keen desire manifested in Parliament by Lord Charles Beresford and others to ascertain what measures were taken to save the *Lusitania* from disaster. The indignation and horror excited by the infamous and murderous attack on a passenger ship by German submarines will keep. What we have to do here and now, is to take into full account the sort of warfare adopted by our enemies and, without trusting to the United States or any other neutral country, concentrate all our energy on the means of rendering it ineffective. At the same time, no blame is to be attached to Mr. Winston Churchill for his reticence. Obviously, it would be most imprudent to give any details about the measures taken by the Admiralty in view of the German threat, as that would be giving information to the enemy. But whatever they were, they failed to prevent the catastrophe. Questions relating to the navigation of the vessel could not be discussed in Parliament while an official enquiry is proceeding under the trusted chairmanship of Lord Mersey. Yet the most exact knowledge of the facts is urgently needed, not for the provision of a scapegoat on whom the blame may be piled, but in order that the experience may be made available for the safeguarding of other ships.

AMONG the victims it seems almost invidious to single one out for special comment, especially when he is a millionaire; but if Mr. Vanderbilt had been the poorest of the poor, he could not have ended his career in a nobler manner. It is known that he could not swim, and after the vessel had been torpedoed he was ready to commit himself to the mercy of the waves and the help of a life preserver; but a distracted old woman coming past at the time, his heart was moved with pity, and he instinctively divested himself of the life preserver and gave it to her. It is in times of acute crisis that the best or the worst of a man comes to the surface, and it will be eternally to the credit of Mr. Vanderbilt that he died like a hero. We cannot help recalling in this connection that when the *Titanic* went down three years ago—not as in this case by the deeds of miscreants, but by misadventure on a dangerous sea—another American lost his life under circumstances that reflected credit on his manliness. The two events side by side go to prove that the American millionaire has what his own countrymen call "grit."

IT would be a great mistake to minimise the importance of the Zeppelin attack on Southend. The raid is clearly only an incident in a settled policy, and immunity from punishment is sure to lead to a repetition. It was so, at any rate, in regard to the ships. Those which tried to bombard Yarmouth got off scathless, and they very soon returned, next time to Scarborough and the neighbouring towns. Once more they went scot free, and a third attack was organised, but, fortunately, this time the German squadron was met by Sir David Beatty and his fleet, and received such a drubbing that no more has been heard since of this kind of coastal attack. In regard to the recent visits of Zeppelins, the main fact to be noticed is that they have been directed to the neighbourhood of London. On Monday bombs were dropped within twenty-five miles of Shoreditch Church. As far as we can learn from the papers, not a single shot was fired at the marauders and no aircraft of our own appeared to chase them away. Here, too, then is matter for sharp enquiry. It is idle for our people to lull themselves into a

false notion of security, because, in the current phrase, no military object was achieved. Watch and ward must be vigilantly kept if harm is to be avoided.

THOSE who have friends prisoners of war in Germany will be glad to be informed on the authority of J. R. Wheeler of the 2nd Wiltshire Regiment, who is now interned in Gottingen, that parcels may safely be confided to the post-office for delivery to the captives in the town. He says parcels arrive safely and are issued to men often within a couple of hours of being received from the post-office. The distribution appears to be managed by English non-commissioned officers acting under the camp authorities. He points out that in this camp newspapers are prohibited, also current periodicals, and also books or articles dealing with the war in any way, letters in parcels, and arms. In contrast with this, are horrible accounts of the treatment of British prisoners by the Bavarians, how the wounded have been despatched, the others shot in batches, and unspeakable barbarity employed. Thus, although in one or two centres humane methods prevail, in others there is the most savage cruelty.

IN another part of the paper Mr. S. F. Edge makes some interesting comments on the able article which we published a week ago on "The Land in War Time." In principle we agree with Mr. Edge. The greatest problem connected with land at the present moment is how to make it very much more productive at a moderate expense. But we imagine his method of turning out pigs to feed, although it says much for the mother-wit which suggested it, is not the very best. On the Continent, after a great deal of research and practical experiment, means have been evolved for bringing waste land rapidly into cultivation and increasing the value of it at an incredible rate. The system pursued in Holland, for instance, is not open to the charge of being merely theoretical, since the man who has the work done has to pay for it, and is naturally intent on obtaining an early return upon his capital outlay, and the men who give the advice depend for their success and for their livelihood on the method they recommend producing good financial results. These methods of reclamation, of course, vary with the character of the land. At the present moment we are arranging for a series of articles explaining how the work is done practically, but in the meantime it is sufficient to say that the end is obtained largely by an increased use of artificial manures and the early growing of some green crop that will become humus.

THE COMING OF THE COLONIES.

I of the bleeding heart, bent head and stricken tongue;
Old, old with years and honours and despairs,
Watch them go forth to fight and die, last heirs
And children of my womb, the happy young.
I took the challenge by the oppressors flung,
I and my peers—and far my beacon flares.
"Up, up, ye lion-cubs from out your lairs!"
Wide o'er the world my cry of need has rung.

They came, my splendid daughters, to the fray—
India and Australasia and the Isles,
Swart Afric and my swift, cold Canada—
With ardour and with laughter and with smiles;
And, though my every son of Britain fall,
With these no man shall hold me as a thrall.

DOROTHY FRANCES GURNEY.

IN the Agricultural Hall, Islington, on Monday, there was opened a British Industries Fair which reflects the greatest credit on the Board of Trade and promises to have an immense effect on commerce. It was opened by the Queen, who examined the exhibits with the very greatest interest. But the Fair is not a show in the usual sense of the term. It is a meeting place for buyers and sellers. Invitations have been sent out to ten thousand Continental buyers as well as to forty thousand in this country. Our readers will be specially interested in the section devoted to Village Industries, where are exhibited the toys and other articles made by peasants in their leisure. There is a great variety, and the workmanship was universally admired. It has been demonstrated that we in Britain can make toys better than those that have been imported from Germany, and not more costly. Other sections worthy of notice are those devoted to Pottery and Glass, Chemical Porcelain, Jewelry and the Button-making and Fastening Machines.

We are glad to hear that a very large number of orders was placed with the manufacturers.

WITH considerable regret agriculturists learn that the present Lord Rothschild has decided not to continue the breeding of pedigree livestock at Tring Park. Under his father, the late Lord Rothschild, Tring Park became the greatest breeding centre of the whole world. Visitors from the most distant parts of the globe were of almost daily occurrence during certain seasons of the year. They saw the different herds and studs kept under the most ideal conditions, and it became the habit with them to replenish their stock from these splendidly bred and well cared for animals. It is more than a quarter of a century since Mr. Richardson Carr, who has all along been responsible for the selection and management of the stock, began his work, and the result is a great testimony to his unwearied assiduity and skill. It was an agricultural education in itself simply to inspect the various activities at Tring. Everything was seen under the best possible conditions, from the model dairy to the Shire stud, and each was the best of its kind from the pretty fawn-like Jersey calf to the mighty Shire stallion. However, the present Lord Rothschild, no doubt on perfectly good and sufficient grounds, has made up his mind to disperse the herds of pedigree cattle, and the operation will begin on Tuesday, May 18th.

ON the date mentioned the famous herd of Jersey cattle will be submitted to sale by auction without reserve. This herd was originally started in 1889 for the purpose of supplying the house with dairy produce. But the adventure turned out so well that it was determined to bring the merits of the breed more prominently before the public by exhibiting at the various agricultural shows. It was in 1889 that the first entries of Jerseys were made from Tring at the Royal Agricultural Show at Windsor, and since then they have formed a feature at all the great agricultural shows in England. A very exact account was kept of the performances of each animal, not only of the prizes and other distinctions won, but in the shape of careful milk records. The successes of the herd may be judged from the fact that between 1889 and 1914 it carried off forty-four champion prizes, eleven Blythwood Bowls and three cups, to say nothing of the many hundreds of first-class and second-class prizes. Very considerably, it has been arranged that the sale shall take place on May 18th, that is to say, two days before the entries close for the Royal at Nottingham. As it was intended to show many of the animals there, the purchasers will acquire them in first-rate show condition, and no doubt will take advantage of the opportunity to enter them.

IN the course of his speech at the anniversary dinner of the Newspaper Press Fund, Mr. Lloyd George drew a little picture of the men of our New Army, to which his auditors listened with a mixture of pride and pathos. He spoke of them as a few weeks ago "quietly pursuing their ordinary avocations with nothing apparently to distinguish them in mind or heart from their fellows." A short time passes and "the next we hear of them is on some terrible battlefield, with grim valour marching through horror and carnage without flinching." Now, on the very next day a New York correspondent sent home an account by Mr. Herbert Corey, who is with the German army in France, of the impression produced on the Germans by our New Army. The German officer who spoke had believed, like the rest of his kind, that the new English troops had been swept up from the slums. But his eyes were opened when he saw them fighting: "These men who charged us at Neuve Chapelle were not gutter-snipes. They were not slum sweepings. They were the best blood in England." In describing their appearance, he said "they looked as though they were the sons of good fathers, or city clerks, or boys who had played in the open air." It is not easy to read without emotion his story of the West Kent Regiment charging across an open field under a heavy fire and, when finally ordered to go back, lighting their cigarettes, strolling leisurely, and picking up their wounded and carrying them into safety.

THOSE who are in touch with the working classes can do nothing more patriotic at the present moment than instil into them that need of thrift which was set forth by the Chancellor of the Exchequer in his Budget speech. So far, the poor have experienced few of the hardships of war. Work has been plentiful. Enlistment removed from the

ranks of labour an unprecedented number of the able-bodied men. Activity created in many industries by the need of clothing and equipping the new armies gave work to the remainder. The labouring man has found his services at a premium, and wages have risen accordingly. Then, the women who have been left behind by their husbands have been in receipt of allowances much more generous than those made in any previous war. It is the misfortune of these people that they are apt to forget the ephemeral character of this prosperity and live up to their present income, ignoring the chance of a depression bound to follow. But the Chancellor urged thrift not only on the principle that it is good to provide for a rainy day, but that there may be funds available for any new war loan which has to be floated. There was no need to labour the point. Strict economy is a duty at the present moment imperative on every citizen.

FRUIT growers at the present moment are going through a period of considerable anxiety. In favoured parts of the country the fruit has set and the danger of frost is practically over; but in very many districts, especially those that lie high and are exposed to the keen northerly and easterly winds which have blown so persistently this spring, Nature has performed an act of retardation. In the hedgerow the blackthorn is just coming out above the speedwell and the cowslip. In the garden plum blossom has scarcely begun to fall and the pears are only coming into full bloom, while but a few of the early apples are out. As far as bloom goes, the season is a marvellous one. On many trees there is scarcely an inch of twig that is not white with flower. But the east wind still continues to blow, and at nights the cold is intense. It all depends upon the weather of the next week or ten days whether we in England shall have one of the greatest fruit crops on record or find our hopes dashed to the ground by the coming of an untimely frost. It is a proverb in orcharding neighbourhoods that if May 8th can be passed without a mishap of this kind, the fruit is safe; but, unfortunately, this year the type of May weather has reverted to what we associate with late March and April, so that no assurance of a fine result can yet be felt.

A LOST PLAYMATE.

Brown-Eyes, at merry noon you slipped away
Within a house of silence; not again
To know the nightingale, or gold of day,
Or voices of the rain.

No more the heather wind shall kiss your brow,
Nor the Sea Lover call you forth from dreams;
And rosaries content you better now
Than English stars and streams.

Yet, kneeling at the Rood when nights are chill,
Do you forget a little Eastern town—
Fire-flies, and flute-songs on the moonlit hill
Soft wailing up and down?

And while the years, all dim and cloistral, leave
Your brow untouched by sun or wintry weather,
Will you remember dreams we used to weave
Of growing old together?

MARY-ADAIR MACDONALD.

"WHEN a person dies, who does any one thing better than anyone else in the world, which so many others are trying to do well, it leaves a gap in society." So Hazlitt wrote of Cavanagh, the famous fives player, and his words have a sad appropriateness to the death of Lieutenant R. W. Poulton Palmer of the 4th Royal Berkshire Regiment, who was killed in action last week. Thousands who had only seen him on the football field must have felt on hearing of his death a keen sense of almost personal loss. He had so pleasant and modest and good-tempered an air that, apart from the sparkling excitement of his play, the hearts of the spectators always went out to him. There have been other great football players, possibly every whit as skilful, but Poulton—for it will be by that name that he will be remembered—captivated the imagination. The sternest critics awarded him a place among the highest, while to the man in the street Poulton stood alone. Hundreds of fine young men have lost their lives, and among them many who have in peaceful times been acclaimed by the world of play, but there is no one of them who will be more sincerely regretted or longer remembered.

THE LOSS OF THE LUSITANIA.



THE LUSITANIA.

ENGLISHMEN cannot be accused of shutting their eyes to the risks and calamities incidental to honest warfare. They do their duty and accept whatever fate may follow. If they die, their names are inscribed on the Roll of Honour, and thus will

be treasured by their descendants, who in days long hence will speak with pride of their ancestor who gave his life for his country in the time of the Great War. But non-combatant victims of German barbarity have not this consolation. They have not felt the madness and glory of the fray, and so receive none of the warrior's compensation. Yet never, save in times of antiquity, when it was not unusual to put a whole town to the sword, have the deaths of non-combatants been so great as in this contest. Germans do not consider it any part of their duty to spare them. On the contrary, the records of this war teem with instances where peaceful villagers were herded and slaughtered like sheep.

Particularly on the sea has this ruthless taste for bloodshed been exhibited. On very few occasions have German battle-ships attacked armed adversaries. Their attention has been devoted in large measure to unarmed merchantmen and fishermen. They have destroyed many trawlers and other innocent workers, but

generally have taken to their heels when confronted with an adversary armed and ready to fight. The destruction of the Lusitania up to now furnishes the most colossal and terrible example of their methods. They have, indeed, made an excuse for themselves by asserting that the great liner was armed, but our Admiralty deny this point blank. It is

urged, too, that warnings were issued in America before the starting of the ship, but this is one of the worst of all excuses. The intending murderer who sends a letter beforehand to his victim warning him of his intention is not, therefore, held guiltless.

The simple fact was that the Lusitania, carrying about two thousand or more passengers, who for purposes of interest or pleasure pass to and fro across the Atlantic, was torpedoed without the usual warning, so that there was no time to rescue any but a comparatively small portion of those on board, and the hostile submarine made off without an attempt at rescue. The tale of victims under circumstances like these cannot be anything but extremely pitiful. We take a man like the late Mr. Vanderbilt, who was on his way to this country for the purpose of taking a more active part than he has hitherto done in the medical and relief work of the Army. Already he had fitted out several ambulances, but, not content with



THE BOAT DECK.

that, he had intended to join the Red Cross Society and give his personal help to the care of the wounded. In his own private life there was nothing to rouse animosity. He was a very rich man, but his methods of spending his money were innocent and laudable. On this side of the Atlantic he showed himself chiefly as a country gentleman, one of whose greatest delights lay in reviving the stage coach.

He was himself an excellent whip, and his figure on the driver's seat was familiar during the summer months to all who frequented the road between Brighton and London. In his love of horses he was almost English. No soldier could have met death more gallantly than he did, because there was a fair chance of his escaping had he not divested himself of his lifebelt for the purpose of helping a distracted old woman. And Mr. Vanderbilt was only one of many. Perhaps the most touching deaths were of two happy and beautiful girls, the two Misses Allan, daughters



W. A. Rouch. Copyright.
THE LATE MR. VANDERBILT.

the collection of pictures made by him and illustrated in our pages. The most notable of these was the collection of modern art which he presented to the City of Dublin; but he also formed a collection of modern art for the Municipal Gallery at Johannesburg, and he brought together the national gallery of seventeenth century Dutch pictures at the Cape Town National Gallery. In him has passed away a man who was doing great service to humanity by travelling and collecting pictures and, generally speaking, assisting in the aesthetic development of his fellow men.

We might go on for a length of time enumerating the personages who have suffered by this act of wanton murder on the part of the Germans. The cynicism of their calculation equals the evil of their intent. They are trusting entirely to their doctrine that might makes right, and their offences against international law have probably been accurately interpreted as an indication



WITH THE WHIP.

of Lady Allan, who survived while her children went down. We can scarcely imagine even the bloodthirsty Hun gloating over the deaths of these. And yet, save in point of age, there was little difference between them and some others. For example, there was Martin van Straaten and his partner, Mr. Lam. Their distinction in life was to have revived in England the use of Dutch tiles. Probably the first tiles used in this country came over to the East Coast, where they were utilised in building the well known type of Norfolk cottage. We know from Pepys' Diary that tiles were very freely employed in the seventeenth century. Van Straaten revived this use, and in this way became known to almost all the architects in Great Britain, who liked him for his uprightness, energy and humane kindness.

A still more striking example of innocence and distinction not saving a victim is to be found in the death of Sir Hugh Lane. His name is familiar to many of our readers on account of

that they have an arrogant belief in ultimate victory. For if they win the campaign it is easy to see that there would be

no one to call them to account. The crimes they have committed in Belgium, in France and on the high seas would all be wiped out if they could emerge from this contest victorious. Thus self-interest helps to foster within them that confidence in victory which will only be effectively shaken when the Allies win a great battle on German ground. That is what they have to prepare to do. It is of little or no use holding forth about the general Hunnishness of the enemy, and less is it advisable to conjure with the names of neutral countries. He gets on best who depends upon himself, and we in Great Britain must make up our minds that whatever help may be forthcoming we shall certainly not despise, but at the same time prepare to reach Berlin on our own account. This is said with no desire to minimise the gigantic nature of the task, but its difficulty should be only the measure of our resolution to achieve it.



Lafayette. Copyright.
THE LATE SIR HUGH LANE.



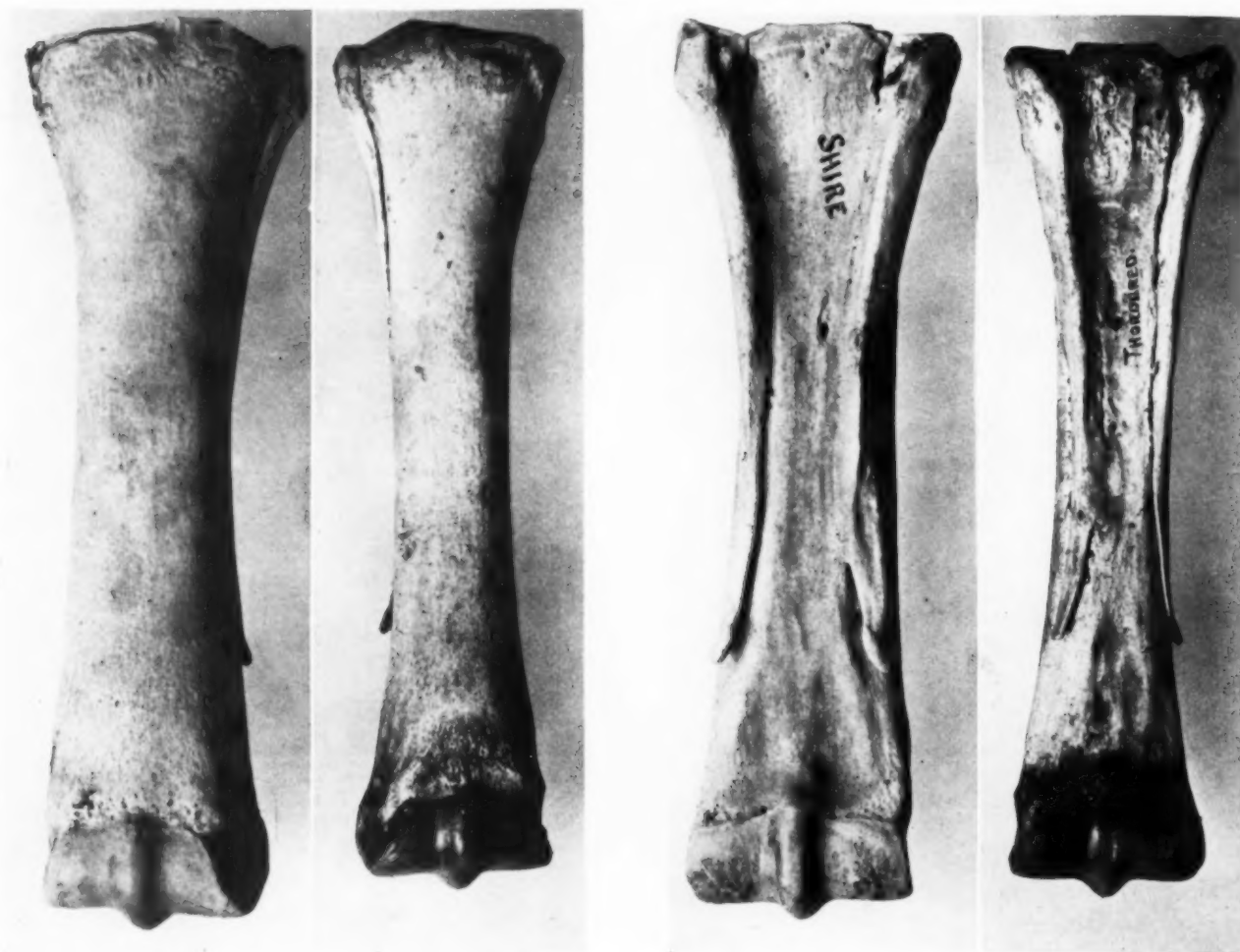
Alexander Keighley.

THE FIELDS OF FRANCE.

Copyright.

SHIRE BONE & THOROUGHBRED BONE

A CONTRAST AND COMPARISON.



Shire (front).

Thoroughbred (front).

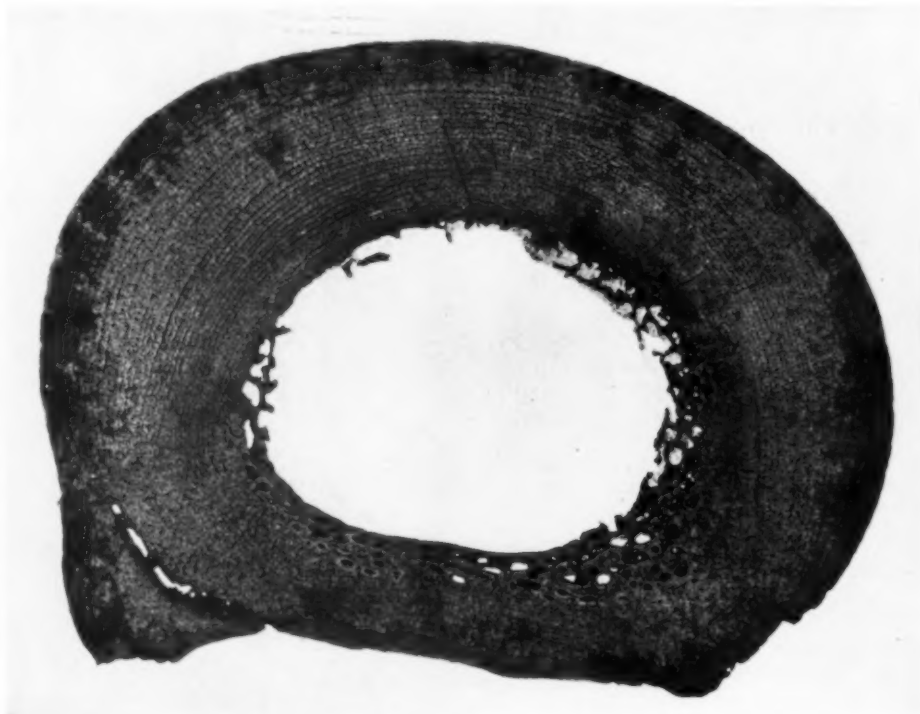
Shire (back).

Thoroughbred (back).

CANNON BONES OF SHIRE AND THOROUGHBRED HORSES. (Half natural size.)

IN the course of the correspondence on the "Half-bred Sire" in COUNTRY LIFE a sentence occurred in a letter written by Mr. George Cradock which gave me to think, as the French say. It was that "the deer has the finest grained bone of any animal; next to that the Arab horse, and next to that the English thoroughbred. The cart-horse has a round, spongy bone. If a section could be taken of the bone of a good thoroughbred horse of the actual area of the solid bone, and com-

pared with the cart-horse or partly bred cart-horse, it will be found that there would be greater strength in the thoroughbred, although it would measure less." Many statements of opinion leave one with a sense that you may either agree or differ from them; there is no means of bringing the author to book, of subjecting his theories to physical tests the result of which ends the argument. They are in their nature vague and cloudy, but my matter-of-fact mind seized upon this as belonging to a different category. If



Very thin section of the Shire's bone photographed by transmitted light, and enlarged to show grain.

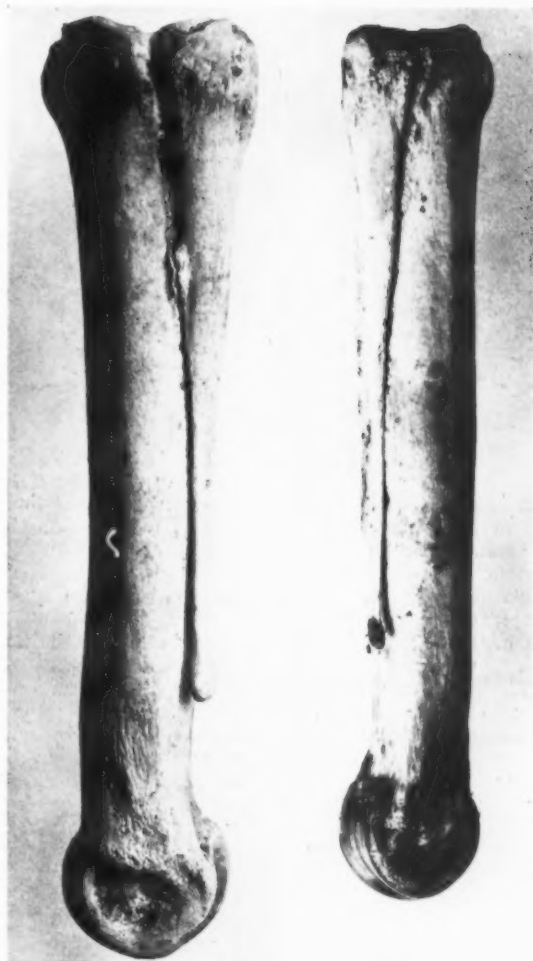
animals can be classified according to the fineness of grain and density of their bone, and placed in an order of merit, such as Mr. Cradock drew up—deer, Arab horse, English thoroughbred and Shire—one would think men of science must have done the necessary weighing and calculation ages ago for the benefit of the unlearned and merely practical men, like myself. Here it is obvious that a scientific examination ought to make further argument unnecessary, and settle once and for ever the differences between the "bone" of the thoroughbred and that of the cart-horse. In my innocence I thought all that was necessary was to apply to one of the seats of veterinary learning and get authoritative confirmation or denial of the statement. But enquiry only laid bare the fact that I had hit upon a tiny, but important, corner of knowledge that had not been explored by our leaders in veterinary science. At the Veterinary College I asked in vain. No one had worked it out. At Cambridge University, Professor Marshall saw the importance of the investigation, but could not find time to undertake it.

Evidently, if my curiosity was to be satisfied, it would only be by starting a little research for the special benefit of readers of COUNTRY LIFE. What encouraged me to do this was the universal agreement that the knowledge gained would be of invaluable service to horse breeding. Therefore, I began to stir up the authorities on the subject, and,



Shire. Thoroughbred.
Section cut from centre of cannon bones. (Natural size.)

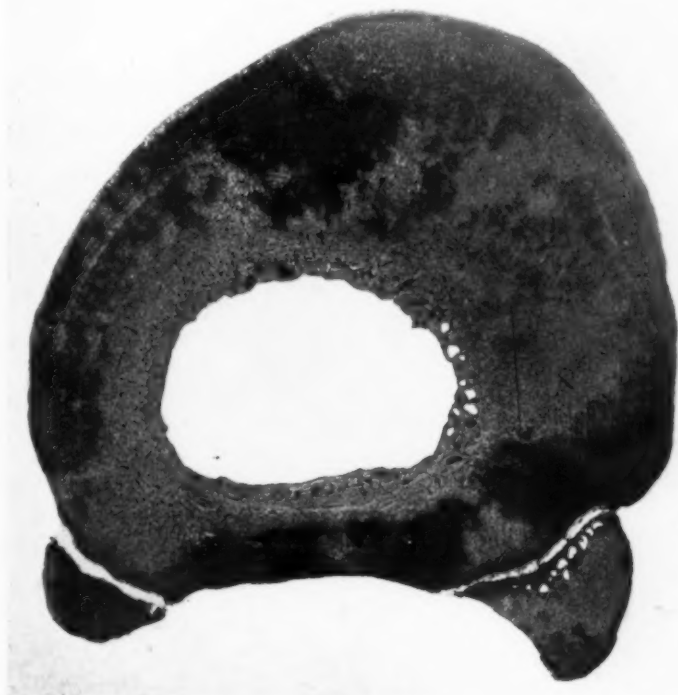
luckily, was able to enlist the active co-operation of Mr. E. H. Leach, the famous veterinary surgeon of Newmarket. He sent me the cannon bones of a thoroughbred horse and of a Shire horse. These were each photographed half their



Shire (side). Thoroughbred (side).
Cannon bones. (Half natural size.)

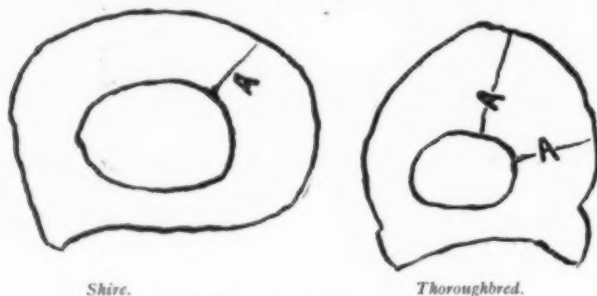
natural size from three points of view. They are reproduced with these notes, and show the comparative sizes. The Shire bone has not only greater length, but considerably more bulk—facts patent to the eye, but offering a solid start for further study. The next step was to send the bones to Messrs. Watson and Sons, and ask them to cut cross sections from the centre—a delicate and fine operation, as I need scarcely say. They succeeded admirably, and I had the sections photographed exactly natural size, and that led to the solution of the riddle. From an accompanying illustration, where the two are shown side by side, it will be seen, firstly, that the diameter of the marrow cavity in the centre of the bone of the Shire is much greater than that of the thoroughbred. Then it will be noticed that (to the naked eye at least), though smaller in circumference, the latter appears to have quite as much actual bone as the former. If an exact calculation could be made it would add considerable value to these photographs.

And now a further step was possible. A very thin and transparent slice was cut from these two small sections—another specimen of exact art. They were mounted on glass and microscopically enlarged by transmitted light. This was done in order to show the difference between the grain of the bone in the two breeds. These magnified photographs speak for themselves. They bring home the superiority of the bone of the blood horse in a manner admitting of no question or denial. The finer quality and actual amount of his bone explain his ability to carry weight which seems disproportionate to the apparent size of that bone. It should be mentioned that the dark patches on the enlarged photographs, particularly in the case of the thoroughbred, are merely natural colour differences due to the freshness of the bone.



Very thin section of the thoroughbred's bone photographed by transmitted light, and enlarged in exactly the same proportion as the Shire's bone.

A friend, who is one of the greatest living authorities on the thoroughbred, points out to me the considerable difference in the manner of distribution of the bone in the two breeds. In the case of the Shire it is more or less regular. The shape of the thoroughbred's bone has far more width just where, in his opinion, greater strength is needed.



Shire.

Thoroughbred.

A PROBLEM OF RESISTANCE.

He calls point A in the appended rough diagrams the line of greatest resistance. If he is right—and though he does not pretend to be a scientist his life-long knowledge of and experience with blood horses gives him authority to speak—this question of increased power of resistance exactly where it is needed is extremely interesting and instructive. Perhaps some more scientific reader can throw light on the theory which should not be left uncontradicted if incorrect.

While hunting men continue to rely on the outside appearance and measurement of bone in the horses they buy, it seems to me likely that coarser horses will be bred from, though they do not possess the powers which belong to the horse with the lighter looking but more serviceable bone derived from the thoroughbred. Breeders who think only of their own pockets, though they themselves may know it to be wrong, can scarcely be blamed for supplying what buyers want, and will pay higher prices for. For years past I have ridden ponies of Exmoor and thoroughbred cross, and also with Exmoor, Arab and thoroughbred blood in them. Some of these ponies have been only about 14h. high, and to the eye their bone has not been big. Several of my friends, whose horses always come from dealers, have passed unflattering remarks. But these same friends have constantly expressed surprise at the powers of my ponies when compared with their bigger boned horses. The whole truth is that until horse buyers themselves realise that bulk of bone is by no means everything, for so long will the supply of horses with big-looking bones be kept up, because, speaking generally, it means higher prices to the breeder. If as a result of this enquiry and these photographs it is brought



Front and back of cannon bone of 20 hour old thoroughbred foal. (Half natural size.)

home to horse lovers that the bone of the thoroughbred possesses superior qualities, no little good will have been accomplished.

As an interesting postscript, the cannon bone of a thoroughbred foal, only twenty hours old, is added to my illustrations. It is at least surprising what little difference in size there is between it and the adult bone, which is of a seven year old racehorse.

HERBERT PRATT.

DEATH OF THE GREATEST LAWN TENNIS PLAYER.



THE LATE CAPTAIN A. F. WILDING.

TO the list of officers who have met with a glorious death in action at the Dardanelles must be added the name of Mr. A. F. Wilding, the celebrated lawn tennis player. Mr. Wilding, who was born in New Zealand thirty-two years ago, last September received a commission in the Royal Marines, and his promotion was very rapid. Mr. Wilding's career as a player of lawn tennis was summarised at the beginning of the brilliant articles on the game which he was contributing to our columns at the outbreak of war. The World's Champion in 1910, 1911, 1912 and 1913, he was undoubtedly the finest player in the world, master of every stroke known to the game. He was aptly described in our pages as "the most physically fit man who ever stepped on to a lawn tennis court." Under no circumstances could he have made a more glorious rounding off of his career, and his name will be remembered not only as a lawn tennis player, but as one of those who gave his life for his country.



A CHARACTERISTIC STROKE.

WORDSWORTH'S WILD DAFFODILS.



GROWING BY THE EDGE OF THE BECK.

THIS morning I am in London, and the view from my window consists mainly of asphalt; but yesterday at this hour I had something very different to look at. I was in Westmorland, and my gaze rested not upon asphalt but upon asphodel.

Wordsworth's adventure had befallen me; albeit with a different introduction. I had not "wandered lonely as a cloud"; on the contrary, I was whirling towards a certain main line station in a friend's automobile. It was highly desirable that I should catch the 9.25—and we had breakfasted late. My friend "let her out," and the car purred up and down the Lakeland roads with the sweet and almost silent responsiveness which marks the well-mannered motor. Nevertheless, we did not catch the 9.25; and I was two hours behindhand in reaching town. We caught the 11.34. It was the daffodils that did it.

My friend pointed them out to me. We were surmounting a shoulder of the lower Fells when he drew my attention to a meadow in the bottom of the valley, beside the beck. "See the wash of yellow on that field? Daffodils. Millions of 'em."

To think that daffodils really grow wild on the banks of an English stream! I had supposed that the thing was no longer true: perhaps was a rare phenomenon already in Wordsworth's day. To a city dweller the daffodil decorates dinner tables, or, at its most natural, flutters a row of lemon-coloured trumpets in suburban borders. Yet here, before me, was the famous poem materialised, within seven miles of the North-Western Railway and easily visible from the upholstered seat of a motor-

car. Asphodel—daffodils—"millions of 'em"! I put my hand on my friend's sleeve. "Let's miss that train."

It was worth it. When the car had been backed into a side lane for safety I went down the hill—my friend stayed to play with tires or carburettors or something—and having crossed a grey stone bridge found a gate into the daffodil field. Springtime sleet had been falling, but now the sun blazed out hotly, and the turf and the blooms glittered with drops of moisture. Now that I saw them closer, the daffodils turned out to be short and sturdy compared with those which Covent Garden supplies: the wild winds of Westmorland would break their stalks were they taller. But



Ward Muir.

APRIL'S MEADOWS.

Copyright.



NODDING AND GOLDEN.

though the flowers rose but a very few inches above the level of the grass, and were small in size, their beauty, in the mass, was delicious. Delicious, too, was their setting. Some hung over the edge of the water, which here was translucent like bottle-green glass, twisting and curling upon itself in strange convolutions as it flowed between moss-stained rocks. Some grew in great patches across the meadow, a sheen of spilt sulphur beneath the sunshine; and as though to make the whole effect even more

impossibly idyllic, young lambs were frisking beside their mothers in the very midst of the picture.

I had brought my camera with me. I am one of those people who are seldom caught without a camera. There is a kind of vandalism in introducing so vulgar a process as photography into fields of asphodel. But no doubt Wordsworth carried a notebook and pencil; not being a poet I must make my records in more mechanical fashion with less unobtrusive apparatus.



Ward Muir.

WILD ON THE BANKS OF AN ENGLISH STREAM.

Copyright.

Under the black cloth, on the small parallelogram of the focussing screen, the wandering ranks of the daffodils were condensed into a bright miniature of exquisite quality. No one who has not photographed with a camera which has a focussing screen can realise how charming a view can appear when thus reduced and brought within a frame, while all externals are cut off and there are no competing interests to distract the vision. Before me, on the glass, I beheld the minute and fairy-like blossoms, motionless in the still air, as though painted: the white specks of the lambs and the more drab bodies of the sheep were the only moving spots in the composition. (Alas! they had indeed moved now into the distance!)

As I racked the screw in and out the picture became alternately blurred and clear; and the blur was as beautiful, in its way, as the clear, for even the colour, without recognisability

in form, was incomparably delicate. But photography cannot render colour. So the temptation to a frenzied impressionism must be resisted in such a subject as this: the contours of the flowers must be shown with exactitude and their tone-value registered with the aid of an orthochromatic light filter.

But if I once begin talking about orthochromatism I shall find myself relapsing into a treatise, and informing all and sundry that the daffodil is a member of the Order Amaryllidaceæ. Also, no doubt (it is a catching disease, Informativeness), that sheep belong to the family Bovidæ and are ruminant mammals.

Which would be a pity. For it is enough to say that though I missed an important engagement by only catching the 11.34, I reckon that I am the richer, all the same, for the memory which, as I look from this London window, turns the asphalt into shimmering oceans of asphodel.

WARD MUIR.

SOME NOTES ON THE NESTING HABITS OF SIX BRITISH WARBLERS.

By OLIVER G. PIKE.

THE extreme west corner of Hertfordshire from which the following notes are taken is a favoured spot for warblers. Eight species nest close to my home, three of these in large numbers, while the others are fairly plentiful. The one met with most frequently is the willow warbler. This bird is common, and every lane, coppice, wood and garden has its birds. Strange



O. G. Pike. A REED WARBLER AT ITS NEST. Copyright.



O. G. Pike.

Copyright.

REED WARBLER FEEDING ITS YOUNG.

to say, the chiff-chaff is rare, and I have never found its nest here, although each spring I hear a few calling. Very soon after the arrival of the willow warblers at the commencement of April, the male birds begin fighting for their mates. The birds, though so small, are desperate fighters, and I have seen two males doing their best to tear each other to pieces. If the weather is fine and warm, the nests are commenced at the end of April, but the beginning of May usually finds the birds building. It is usual for the willow warbler



A WHITETHROAT BEFORE THE CAMERA.

to line its nest warmly with feathers, but one nest that I found had no feathers in it, being lined with fine grasses and horsehair, looking more like the nest of its near ally, the wood warbler.

While photographing a pair of willow warblers at their nest, I saw a very pretty incident. The female bird was inside the nest attending to her young when the male arrived with a large insect.

Usually when he brought food to the nest, she left and made way for her mate; but on this occasion she did not do so, but went on with her duties inside the nest. She was not feeding the young, as she had previously given them all the food she had brought, but she was just turning round and shuffling about previous to brooding over them. Her mate

stood on the threshold of the nest and patiently waited with the insect lying across the tip of his beak. He

remained perfectly still until she looked up and saw him there; then she brought her head round to the entrance of the nest and gently took the insect from him. He still kept perfectly motionless until he saw that his burden was safely deposited in one of the baby beaks, then turned and flew off for another supply of food.

I have noticed that the majority of nests of the blackcap and garden warbler that I have found have been very badly fastened to their supports, and on many occasions I have saved the nest from falling by propping it up with twigs or otherwise fastening it to the branches. In that corner of



O. G. Pike.

THE WHITETHROAT'S BROOD.

Copyright.



WILLOW WARBLERS.



A MALE BLACKCAP SITTING.

part of the wood where the garden warbler is found nesting, it is not usual to find the blackcap; they seem to keep to their own parts, and I believe it is owing to the songs being similar, and the birds on this account being rivals, that they do this. Most of the male members of the warbler family will build dummy nests while their mates are sitting, and the blackcap and garden warbler seem to excel in this respect, especially in the number they construct. I have known the garden warbler to build five close to the nest on which his mate was sitting. I was once standing near a blackcap's nest on which the hen was sitting, and I could hear her mate singing loudly in a small isolated bush not far away. Just for the sake of something to do, I tried to see how near I could stalk to the

bush without the bird hearing me. I was able to get right to it, and still he sang. I gently moved aside a branch and saw an interesting sight. There was the blackcap on his dummy nest; he seemed to be hopelessly entangled with the grasses which he was vainly trying to form into the shape of a nest; he was turning round and round, all the time singing loudly. Suddenly he looked up and saw me looking down at him, and he was so startled that he stopped his song, flew away and never returned to his nest again!

A very favourite place for the garden warbler to nest is in a gooseberry bush, and I have found many nests in this situation. At one nest that was discovered, the hen bird was found to be lying dead on the branches by the nest, and on examining



her we found that there was a small wound in her neck, which might have been made by one of the sharp thorns of the bush. I was anxious to find if the male bird would continue feeding the young, which had left their shells about six days before the accident happened, and on a later visit to the nest I was pleased to find that he succeeded in rearing them, and all four flew from the nest.

The male reed warbler will build several dummy nests, and he is often a more successful builder than the garden warbler, although his attempts fall short of the nest proper. The female in all cases does most of the actual nest construction, while the male brings the grasses to her.

The sedge warbler is very common in my district, and the birds often build their nests in the small artificial covers made for wild ducks to nest under. I have often found them with their nest a few inches above the sitting duck. The sedge warbler's nest is the one most frequently used by the cuckoo for her egg in some seasons, while in others the reed warbler is used as the foster-parent. Other birds do not seem to be patronised by the cuckoo here.

The whitethroat is a most careful nest builder. When the nest looks finished the birds will often spend another week

visited did her best to take me from her home. If I disturbed her she would just throw herself on to the ground at my feet, spread out one wing as if badly broken, give out a plaintive cry and drag herself along in front of me, always taking care to keep just out of my reach. I often tried to catch her, but she was far too knowing to let me.

All the warblers make charming sitters for the camera and are easy to photograph, but to get successful pictures it is as well to be thoroughly concealed, for if the bird knows you are in hiding near her nest her movements will be unnatural. A rapid exposure is not necessary; the photographs accompanying this article had an exposure with a focal-plane shutter of about one-eighth of a second.

LAND IN WAR TIME.

I HAVE read with great interest the article by Sir Howard Frank on "The Land in War Time," and I sincerely hope he is right in his views as to the future. There can be no question that land has been paying more than its just share to the national revenue, both imperial and local, for many years back, and the least that can in justice be done for it is to see

that its burdens are not increased in the distribution of the taxation which will be necessary to meet the heavy liabilities the country has been obliged to incur in the prosecution of the present war.

Sir Howard, of course, writes primarily of English land, and perhaps I may be allowed, as a land-owner who has both farmed his own land and managed his own estates, to add something with regard to land in Scotland. His suggestions, how to improve matters in the future, are most helpful, and, I trust, may be seriously taken to heart by our legislators. There was never sounder advice given than under the first heading, "Let us alone." I would even go further, and put forward a plea for the amendment, if not the repeal, of many of the recent Agricultural Holdings Acts. This is put forward not in the interests of individual land-owners, but in the interest of the community. I can safely say that these Acts have not been demanded by the best and most thoughtful of agricultural tenants, but have been brought into being mainly as a political and party measure, and their effect has been to put a great deal of power into the hands of the unscrupulous or incompetent farmer, and has enabled him to exploit the soil for his own selfish benefit, but to the detriment of its fertility and to the impoverishment of the country.

In the greater part of Scotland the system of leasing for a period of years, until lately generally nineteen, still prevails. With the depression which has come over agriculture a system of breaks in these leases—in nearly every instance at the request of the tenants themselves—has come into force, and it is no unusual thing for

farms to come into the letting market again in periods of five or six years. With these short terms and the freedom given to agricultural tenants in the matter of cultivation by recent legislation, some unscrupulous farmers have been able to take all the good out of the land during their short tenure, at the expense of the owner and the community. There is practically no redress



O. G. Pike.

IMPATIENT LITTLE SEDGE WARBLERS.

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in completing it, adding small pieces of horsehair or fine grasses, and after all is done it is a fragile structure. When the bird has been sitting for a few days she is very clever in attracting enemies from the nest. One bird that I often

obtainable against such tenants, the so-called safeguards provided by statute being illusory and, in practice, of hardly any value. Under the older long term tenancies the tenant improved the fertility of the land, both he and the owner benefited, and the wealth of the country increased.

With regard to the reclamation of land, there is very little waste land in my own part of Scotland which could profitably be brought under cultivation. The reverse has unfortunately been the case, and land previously under the plough has been going out of cultivation and reverting to inferior pastures at the rate of several thousand acres annually. Looking to the very greatly increased cost of arable farming this is not to be wondered at, and I do not

think that even this sort of land—mostly late and high lying and only taken in when prices were very high and the cost of labour very low—could again be profitably cultivated.

I have personally more faith in afforestation for much of this as well as for wilder country, and I am convinced from my own experience and observation that, given proper methods and the practical sympathy and encouragement from Government that it deserves, forestry would yield far higher returns per acre than the present rough pasture it might displace, and would, moreover, give the work and wages so badly needed in many of our country districts.

SYDNEY J. GAMMELL.

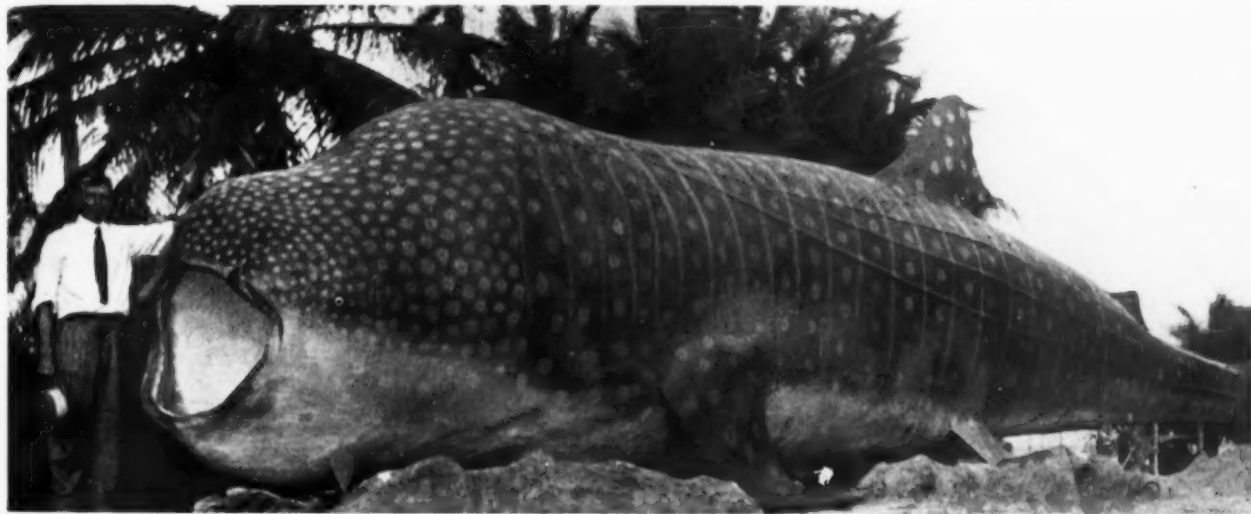
THE LARGEST LIVING SHARK.

THE whale shark bears the scientific name of *Rhinodon typicus*, and was formerly placed in the classification close to the basking shark (*Selache maxima*); but it is now recognised to be more nearly allied to the dogfish of the genus *ginglymostoma*, its resemblance to the basking shark being restricted to the dentition and the structure of the gills, characters which are related to its mode of feeding rather than an indication of any strict affinity in the sense of blood relationship.

It was first described by Sir Andrew Smith in 1826, from a specimen 16ft. long captured at the Cape. One about the same size, from Ceylon, is exhibited in the Fish Gallery of the Natural History Museum at South Kensington, where fragments of individuals from the Seychelles and from Peru are also preserved. Like the basking shark, it is a pelagic fish, roaming over the seas of nearly the whole world. It has even been caught at so northern a latitude as New Brunswick; for I believe this to be the monster shark reported by Dr. C. T. Jackson in the Proceedings of the Natural History Society of Boston in 1853,

wide. The whale shark is a slow creature, not addicted to great depths, as stated by some writers. Its food consists of the minute copepods or other crustaceans, as well as of molluscs, which live about the surface of the ocean. Notwithstanding its huge size, it is incapable of swallowing a man. Professor E. P. Wright, who has observed the fish in the Seychelles, says it now and then rubs itself against a large pirogue, as a consequence upsetting it, but under the circumstances it never attacks or molests the men. The whale shark may be regarded as the largest of all living fishes, as the great basking shark (*Selache maxima*) is not known to exceed a length of 36ft., this being the measurement, according to Yarrell, of one caught at Brighton. Another, 26ft. long, from Shanklin, Isle of Wight, used to be exhibited in the Natural History Museum, but has been lately replaced by one of the same size from Bergen, Norway.

Both the whale shark and the basking shark differ from the true sharks in their very small teeth and in their very wide gill openings and peculiar gills, each of which is furnished with a comb-like apparatus for retaining the small food



WHALE SHARK CAPTURED OFF KNIGHT'S KEY, FLORIDA.

as having been found by Captain Helms entangled in a number of fishing nets near the entrance to the harbour of St. John, in August, 1851. The fish measured 40ft. It has been referred to as the basking shark, but, from the account given, I would suggest its having been a whale shark. Dr. Jackson further observes that it was probably a fish of the same kind that, some years before, by getting entangled with a schooner's cable at anchor in St. Andrew's Bay, New Brunswick, dragged the vessel some miles to sea with great velocity, to the great alarm of the mariners, who ascribed the cause of the unwilling transportation to the doings of the great sea serpent.

Dr. Buist, in a paper published in the Proceedings of our Zoological Society as early as 1850, refers to the whale shark as the "Mhor," or great basking shark, and states that it was frequently captured at Kurrachee, not far from the mouth of the Indus. It is found floating or asleep near the surface of the water, and it is then struck with a harpoon. The stricken fish is allowed to run till tired; it is then pulled in and beaten with clubs till stunned. A large hook is now hooked into its eyes and nostrils, or wherever it can be got most easily attached, and by this the shark is towed on shore; several boats are required for towing. The Mhor is often 40ft., sometimes 60ft., in length, the mouth being as much as 4ft.

and for preventing it from passing through the gill openings with the water received by the mouth. These comb-like branchial appendages are to be regarded as elongate, modified teeth, the function of which is the same as that of the whalebone in whales, viz., to serve as a sieve in connection with the food, consisting, as we have mentioned above, of minute animals. The man-eating shark (*Carchacodon Rondeletii*), which reaches a length of over 30ft., has enormous triangular teeth, cutting like knives. Linnæus believed it to be the animal which swallowed the prophet Jonah. "Jonam Prophetum ut veteris Herculem trinoctem, in hujus ventriculo tridui spatia basisse, verosimile est." A fossil species of the same genus must have been, judging by the size of its teeth, at least 90ft. in length.

The question of the maximum growth and longevity of these huge sharks is an open one, in the absence of any direct information as well as of any means of anatomical verification. We may only assume, from their slow growth, that sharks are very long lived, and there is every probability that their size increases to near the end of their life, although less appreciably as they approach old age. Some sharks remain small, while others reach the colossal size to which we have alluded above.

G. A. BOULENGER.



THERE must be few estates in Berkshire which have been owned in turn, as Buckland has been, by so many well known families. It was always a manor, and one Hugh de Bokeland or Buckland had it in 1227. His grand-daughter, Matilda, married William d'Averanches, and their daughter was wife of Hamon Crevequer. Buckland passed to another name when

Crevequer's daughter, Isolda, married Nicholas de Lenham, and to their descendants it belonged until 1376. From then until 1425 it was held, after some legal bickerings, by Sir Thomas Besils and his family, who were descended from the son of William d'Averanches. These are all fine and knightly names, but none so pleasant to English ears as Chaucer.

The poet, son of a London vintner, had no little money through his hands during the long years that he was familiar with Courts. He was written down "armiger" from 1373, became Comptroller of Customs the next year, and was glad soon after to borrow fifty shillings from the Exchequer by way of advance pay.

The writing of "the rolls of his office with his own hand" was pleasantly varied by diplomatic jaunts to France, and we may well believe the rolls were not innocent of verses in the margins. Later poets than he have not been guiltless of wooing the Muse on official notepaper. But Chaucer did not prosper, his office was lost, and a pension when Henry IV came to the throne was very welcome. There is little evidence to prove that Thomas Chaucer, Speaker of the House of Commons, was Geoffrey's son, but it is generally accepted. He was as acquisitive as the poet was free handed. Geoffrey's connection with John Duke of Lancaster through his marriage with a sister of the Duke's mistress had brought him small prosperity; but Thomas handled the situation more cleverly. He got the appointment of Chief Butler to Richard II, married a rich wife who brought him big estates—Ewelme, Oxon, among them—and became steward of Wallingford Castle.

Probably he bought Buckland to enlarge his Oxfordshire and Berkshire holdings, for he possessed it at the end of his life, and it went to his only child, Alice, who married William de la Pole Earl of Suffolk. On Earl Edmund's attainder, Henry VIII granted it to Charles Brandon; but it was returned into the King's hands and granted, in 1541, to a Yate. This must have been James Yate, the first to be called "of Buckland."



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THE HOUSE FROM ACROSS THE LAKE.

"COUNTRY LIFE"



ENTRANCE FRONT FROM THE SOUTH-WEST.

"COUNTRY LIFE."

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THE TERRACE LOOKING NORTHWARDS.

"COUNTRY LIFE."



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NORTH SIDE AND TERRACE.

"COUNTRY LIFE."

His father was John Yate, formerly of Charney and afterwards of Lyford, "gent and merchant of the staple." The great sheep runs on the downs which rise from the Thames Valley made many fortunes, and Buckland was no doubt the portion of the stapler's younger son. James Yate's family must have prospered, for his great-grandson, Edward Yate, born in 1578, was made baronet in 1622.

Succeeded by a Sir John and Sir Charles in turn, the baronetcy became extinct with the son of the latter, another Sir John. He was unmarried at his death in 1690, and Buckland passed to his sister, Mary Yate, who married Sir Robert Throckmorton of Coughton in Warwickshire. The Throckmortons had long filled a picturesque place in our history. Sir John was Under-Treasurer to Henry VI, and his marriage with the heiress of Sir Guy de Spineto brought Coughton into Throckmorton possession. His grandson, Sir Robert, was Privy Councillor to Henry VII, and of such piety that in old age he started on a pilgrimage to the Holy Land, but died before he reached his goal. Two of his sons left their mark.

The younger one, Michael, anticipated Francis Throckmorton's taste for conspiracy by entering Cardinal Pole's service in Rome as a spy for Thomas Cromwell. He then worked loyally for Pole in the joyous task of hoodwinking the English Government. The elder, Sir George, was also an opponent of Cromwell, who contrived to get him into prison. When Cromwell fell, Throckmorton was a dangerous witness against him, and he secured the manor of Oversley, which had been a bone of contention between the two men.

In the next generation the eldest son,

Sir Robert, was not the most notable. His brother, Sir Nicholas, born in 1515, steered a skilful course through the reigns of Edward VI, Mary and Elizabeth. Unlike most of his house, he was a stout Protestant, and his friendship for Lady Jane Grey made him suspect for a time. Soon after Mary's accession he had a taste of the Tower but was acquitted after an exciting trial. His ability as a diplomatist brought him employment during Elizabeth's devious negotiations with Mary Queen of Scots, and he seems to have treated the unhappy lady with a good feeling which earned her thanks.

The Throckmortons had a genius for controversy and subterranean methods. One of the nephews of Sir Nicholas, suitably named Job, was a Puritan of the most advanced type. Another, Francis, was a strenuous Roman Catholic and plotted on behalf of Mary Queen of Scots with such pertinacity that the *Dictionary of National Biography* identifies him flatly as "conspirator." Meanwhile the head of the Throckmortons, Sir George, and his son, Robert, piloted the family barque safely through troubled waters without making any striking appearance in history. The next heir, Thomas, had the family habit of violent religious opinions, which led him into every sort of trouble. Imprisonment alternated steadily with sequestration of his estate, some of which was permanently lost. His son never succeeded to Coughton, as he died during his father's lifetime. The next possessor was his grandson, Sir Robert, a devoted adherent of Charles I, who made him baronet. The Civil War does not seem to have impoverished the family, for the next in title, Francis, rebuilt Coughton and lived there in some magnificence after the Restoration.

His son, Sir Robert, brings us back into direct touch with our subject, for it was he who married Mary Yate and so added Buckland to the Throckmorton possessions. By the middle of the eighteenth century the family home of the Yates was doubtless somewhat dilapidated and, in any case, its Tudor



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NORTH SIDE OF EAST PAVILION.

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characteristics would have seemed barbarous in the light of current taste. The fourth baronet, son of Sir Robert and Dame Mary, succeeded to the title in 1721, abandoned the old house in 1757, and employed the younger Wood of Bath to build anew a little distance away on a site which offered a fine view.

He did not desert Coughton for Buckland, which then had comparatively small accommodation, and served him, no doubt, as an occasional residence only. Its architectural interest is, none the less, considerable, both for its own merits as a design and because of the personality of the Woods of Bath. The elder John Wood was the maker of the name, but his son, also John, worked with him for many years, and continued the practice from his father's death, in 1754, until he died himself in 1782. The father was one of the few eighteenth century architects who were wholly provincial in the locale of their practice, but in



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A CHARLES II WRITING CABINET.

"C.L."

no way behind their London contemporaries in the quality and amount of their work. Wood of Bath ranks higher as an artist than Carr of York, but both wear their place-names like a title. Wood, like Carr, was a Yorkshireman by birth, and another likeness was in their skill in the handling of masonry. Wood, in fact, owed his artistic success to the commercial ability which Ralph Allen showed in exploiting Bath stone as a building material. His most notable country house, Prior Park, built between 1737 and 1743 as a residence for Allen, was, in fact, a magnificent advertisement for the product of his quarries.

Mr. Reginald Blomfield says, in a mordant phrase, of the Brothers Adam, that they "enjoy the doubtful honour of being the earliest of modern English architects to embark on the thorny paths of finance and speculative building," but Wood of Bath was contractor and financier as well as architect. Indeed, we owe



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Bath's present aspect very largely to his skilful management of building speculation. In this character he was not only long before the Adams, but rather more successful. Another architect named Strahan, who designed the Redland Chapel at Bristol, also did much sound work on Wood's lines at Bath between 1727 and 1736, and once again we must be grateful to the speculative spirit.

It is, however, as a town planner rather than as a builder of country houses that Wood will always be remembered. Beau Nash created the social eminence of Bath, but it was Wood who provided the architectural body for the social spirit. Inigo Jones may be regarded as the first English town planner because of his work in laying out Lincoln's Inn Fields and, more notably, Covent Garden. The main lines of Lincoln's Inn Fields remain, though nearly all the houses have disappeared; but of the Covent Garden scheme, with its piazza, the only survivor is St. Paul's Church, itself rebuilt after destruction by fire, and some mutilated archways. Wren earnestly desired to follow in his steps with his splendid plan for the rebuilding of London after the Fire, but the clash of private interests defeated him. Wood's work at Bath, therefore,

remains the finest exposition of Palladian principles employed on town planning, and happily he built so well, and the city authorities have in the main been such intelligent guardians of their heritage, that Bath has escaped the vandalism which has wrecked so much elsewhere. New Edinburgh is its only rival in Great Britain for dignity of treatment. We may well

believe that Robert Adam, to whose influence the modern Athens owes so much, learnt no little from the elder Wood's career at Bath, which closed before Adam had begun to practise. This is not the place to examine the work of the Woods at Bath in any detail, but as it was the son who designed Buckland, we may distinguish roughly the share of the two men in the making of Bath.

The father first designed the North and South Parades, which were followed in 1729 by Queen Square, where, at No. 24, he lived for a time and eventually returned to die. The Mineral Water Hospital was built between 1738 and 1742, and Wood gave his services without fee or reward. He also designed Gay Street and the Circus, but it was not until 1764 that the latter was finished by his son, who was wholly responsible for the Royal Crescent. The father, for all



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THE TEMPLE IN THE WOOD AT BUCKLAND.

"C.L."

his devotion to the strait Palladian ways in practice, was not without his theoretical whimsies. He devoted a folio volume to the "Plagiarisms of the Heathens Detected," in which he explained that the classical orders were developed as an architectural system from the laws of building revealed by God to the Jews. Like Inigo Jones, he was attracted by the mystery of Stonehenge, and relieved his feelings in an octavo.

Wood's classification of various types of town houses according to their size and adornment now reads oddly. The plainest class of building was called first-rate, and so on to the largest and most ornate, which figured as sixth-rate. Modern taste agrees that plain work is "first-rate" and that undue ornament places a building far down the scale, but time has given a significance to "first-rate" which Wood did not anticipate. The younger John Wood succeeded to a notable practice and was responsible for the

Upper Assembly Rooms, York Buildings and many more of the dignified stone-built streets which make Bath an enduring delight. Of country houses he did very few, and Buckland is the most interesting. In choosing the site he must have had in mind Prior Park, his father's masterpiece. Both houses stand at the top of a hill and have a splendid outlook over a valley with a lake at the foot of the slope. At Buckland he also adopted the root idea of a tall central block with long extended wings, which gives the maximum of architectural bravura with the minimum of accommodation.

For some time before Buckland was acquired by Sir Maurice FitzGerald the house had presented a somewhat forlorn appearance, from which it has since been rescued. But the story of its fortunes since it became the English seat of the Knights of Kerry and of the Knights themselves must be the subject of another article.

LAWRENCE WEAVER.

IN THE GARDEN.

BY WILLIAM ROBINSON.

THE WILD GARDEN OVERDONE.

THIS way of adorning lawn, orchard or garden, especially in the spring, is often overdone. Examples of this are often seen, in which the roots are set thickly and the flowers cover the whole of the ground. That is a mistake, as it leads to the absence of repose, of breadth and of all good effect. At Kew, at first, and in some public gardens the flowers were put in in the same close way that men put tiles on a roof, with the result that the best charm of the system is altogether lost.

I have tried many ways, and only regret those in which I planted too many bulbs. Narcissi in cool ground increase so rapidly that it becomes very difficult to thin them out when they grow too thickly. The late Mr. F. W. Burbidge, who knew the Narcissi well, on seeing my plantings, said, "Whatever trouble you had in getting them in, whoever in the future wants to get them out will have much more." The greatest pleasure we have is in seeing things in little colonies, on banks by water, or here and there among Heaths and low shrubs and half concealed by them.

Narcissi and other bulbs are offered in such quantities and at such rates that the danger of overdoing is increased. As an instance of the better way, take that beautiful plant the scarlet Windflower; it is not as easily got as other bulbs, and usually it is tried in less quantities, and to immense advantage. A very small group of it in a meadow or orchard will tell much better than if the ground were covered with flowers. In the garden

I found it very apt to die out, but on a lawn mown twice a year for hay it does very well. The groups should be small and picturesque in outline, and they should not be set out in squares or dots at regular intervals. Where the planting of Narcissi is in grass that has to be mown for hay, it is more than ever necessary that it should be very lightly planted, because



G. A. Champion.

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APRIL VIEW OF WARREN'S WOOD: DAFFODILS ON ONE SIDE OF RIDE ONLY.

the farmer who has to use the hay objects, and says his horse objects.

In planting woodland drives there is no such fear, but even there the best results are got from carefully placed groups. In planting Crocuses and early bulbs, a good way is to place the roots in the hollows that occur so often in turf, and level up to the surrounding surface with soil. I have filled a good many such hollows in a lawn, and have improved the turf in doing so. It is best to have no set rule, and to work according to the ground; but if any idea is wanted, I should say a tenth of the surface of a lawn or orchard is as much as should be planted.

WATER AND THE WATERSIDE.

In dry ground we have it in our power to control plants a little, though often then great care is needed; but when one

all round a lake or pond and destroys all airiness and beauty. The beauty of a place was obscured in that way when I suggested taking away the Alders, and the effect of their removal has been extraordinary, not only on the pond itself, but also on the whole place, where the light effect of the water began to show from different parts. Common Willows, like the Palm Willow, and the Sallow among the meaner forms of the tree, do harm by making the banks of many a stream or pond monotonous and ugly; whereas the right way is to keep all the planting space for waterside trees of distinct beauty, like the White Willow and various Tree Willows, the Aspen, the Canadian Hemlock, and low trees and shrubs, like the Siberian Dogwood, the Water Elder (*Viburnum*), some of the Crab tribe (beautiful as they are in flower), and some native plants, like the Birch and Sloe, that often come without asking. If there be space and deep river-carried soil, I should never leave out the summer-leaving Cypress, the noblest waterside tree of the great North American sylvia.

HAWTHORN IN THE GARDEN.

IN common with most lovers of the countryside, I have long been an ardent admirer of our native Hawthorn, especially when throwing its long festoons of creamy white, fragrant blossoms in wild profusion to the breezes and sun of early May. Yet it was not until I witnessed the disappointment of a visitor from the United States of America that I realised this common shrub or tree was regarded by others as a sort of national asset. This American friend had read of our Hawthorn trees and hedges, had seen and admired pictures of them in full spring attire, and then, on his first visit to this country, timed to coincide with the first week in May, the Hawthorn had not fulfilled its part of the arrangement. My visitor, in common with many others from foreign shores, presumed that as we call it May-blossom it must always be in flower on May Day, a belief that our fickle climate does its best to dispel eight years out of ten.

To the botanist Hawthorn is known by the rather awesome name of *Crataegus Oxyacantha*, and it is to be regretted that the tree is not made more extensive use of in the wilder parts of the garden. Willows and Weeping Elms, Brooms and Gorses, Dog Roses



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DAFFODILS IN JUNE IN HEATH GARDEN.

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and Honeysuckle, all these wildings are rightly put to good use in the so-called wild garden, yet one may look in vain for the common Hawthorn in ninety-nine gardens out of a hundred. Yet in the rare instances where it has grown, probably more by accident than any conception of the garden designer, it is appreciated by the owner more than any other tree or shrub. Being a native, and a particularly good tempered one, the Hawthorn will thrive in almost any kind of soil or situation. I know of old and gnarled trees that must have lived for very many years in soil that is nearly pure sand, and also of similar trees in fairly stiff clay, with others in almost any soil mixture that comes between the two. Hence the owner of a wild garden need have no hesitation in planting trees on the score of unsuitable soil.

Often waterside trees destroy the beauty of a water garden, and nothing quite so much as the Alder, which plants itself

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Undoubtedly the very best effect is obtained from the common Hawthorn when planted beside a pool of clear water,



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GRAVETYE MANOR. APRIL, 1915.

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so that the branches stretch themselves far over the surface. A tree in full blossom, with its delicate white festoons reflected in the water, is a picture such as few other trees or shrubs, even if we include those from foreign countries, are capable of producing.

For the more select parts of the garden there are the coloured Hawthorns, some with clusters of pale pink flowers, either of single or double texture, and others of more or less deep crimson. If rightly placed these have their value, but those who possess a dwelling-house of red brick should leave them well alone. For some years I have had to endure each May the clashing of

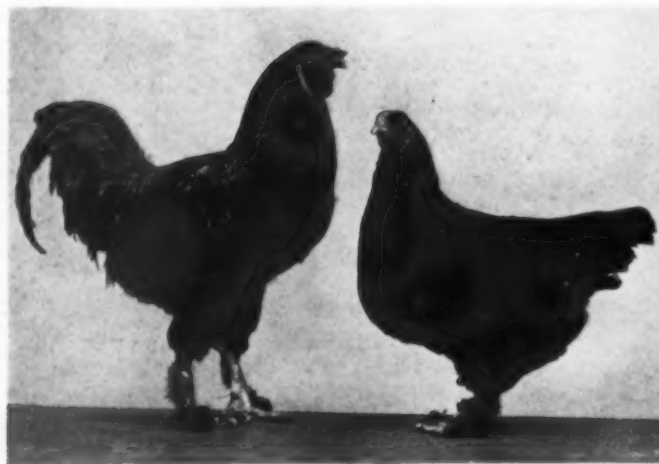
a pink Hawthorn with the red brick walls of a house, due to the tree being carelessly planted in close proximity thereto. A white or grey house is quite safe, but the best place for coloured Hawthorns is among other, and preferably dark-leaved, trees or tall shrubs.

A peculiar variety of the common Hawthorn is that known as the Glastonbury Thorn. This frequently opens its rather dirty creamy white flowers at Christmas, and this has given rise to several legends. Except as a curiosity, however, it is not a tree that one would advise for planting, even in the wild garden. H.

THE FLEMISH SYSTEM OF POULTRY REARING:

SCIENTIFICALLY IMPROVED.—III.

BY BELLE ORPIGNE (FORMERLY MADAME B. ALBERT JASPER).



O. Hardee.



BLACK AND WHITE MALINES.

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IN order to rear economically good table fowls which would leave a substantial profit, we must first learn how to obtain the greatest percentage out of the eggs we incubate.

Some fifteen years ago our Flemish peasants used to incubate with hens; now very few of them do so. In the smallest farms where production of table birds is carried out we no longer see broody hens. Very quick where his interest is concerned, the Flemish peasant promptly realised that with a hen, chickens could not be produced in the season of the year when table fowls, being scarce, fetch high prices. The hen cannot be made to brood at will, and the custom to set hen turkeys on eggs when it is suitable, as is done in some parts of France, is not in favour in Flanders. So the production of table fowls, carried out on a small or big scale, should be made by means of incubators. With them there is no breakage of eggs if gently handled; no crushing of the chick by a stupid mother, nor eating of the eggs by a voracious one, and *no vermin*—a cause of so many failures where rapid production is sought for. With incubators, a great number of chicks can be produced at will, and at the time of year when the market requires them. In our country we begin incubating from October and go on till May, and some people continue all the year round.

The greatest profits will be obtained where the greatest percentage of chicks is hatched. In our big, light and well aired brooder houses accommodation is made for a great number of chicks—500 or 1,000 more or less will make no difference in light, heating or time; even food will increase the expenses very little. We must bear in mind that every egg lost, every chick dead in shell, every cripple, raises the average prices of the others. Consequently, it is most important and more than worth while to go into details which will help towards our object, which is to hatch a great number of chickens. All eggs placed in the incubator—8,000 or 10,000 monthly in big establishments—not only represent capital because of their intrinsic worth, but because of the potential profit represented by those eggs.

I have not any intention in these articles to discuss the science of poultry culture, but to point out what to do and how to make a profit. I presume that my readers are able to manage an incubator, and I shall dwell only on the modifications I have introduced into the customary methods as the result of lengthy and thorough studies.

Everybody interested in poultry has read and re-read—if not discovered by experiment himself—that several questions, such as moisture, died in shell, crippled chickens, and so on, have not yet been solved satisfactorily; in fact, artificial incubation hitherto has not succeeded in dethroning the old mother hen. There is with her no question or doubt about moisture, ventilation, evaporation of the liquid, etc. She is perfect in these points, especially when not interfered with. Why, then, should not the incubator be as perfect as the hen? is a question which has very much and for a long time occupied my thoughts, till I made up my mind to study for myself those pending questions. The numerous admonitions, "Do this," "Don't do that," of the expert or amateur were not sufficient to satisfy me, because they did not give me an account of the study carried out by those advisers. They did not enable me to judge if they were qualified by their experiments to give advice.

Presuming that my English readers are endued with as much common-sense as may be expected from such practical people, I do not doubt they would like to read some logical explanations of what I have gone through, and eventually go further than I have gone myself. "Science being other people's knowledge," all of us can add a link to this beautiful chain, which helps to make progress.

For commercial undertakings, the motto "time is money" has to be remembered every minute. Where four people have to attend to 30,000 chickens produced annually, saving of time means saving of labour and of money. For this object we shall choose an incubator which can be easily and rapidly manipulated, having a capacity of 400 eggs, fitted with interchangeable drawers, concave towards the centre and separated with a reglet—it helps the turning of the eggs. Our incubator will have a nursery, in which newly born

chicks will gently crawl towards the glass door, attracted by the light, and by their falling into it make room for the other eggs. With the help of this device they never lay on the chipped eggs, nor do they interfere with the coming chicks' efforts to break through the shells. They do not remain in the drawers, and do not, consequently, raise the temperature too much. This automatic removal of the chicks is a great improvement, which saves many lives in big undertakings.

We will place our incubators in a well aired incubator room or cellar; they will be heated and regulated for several days to a steady temperature of 100deg. Fahr. Care should be taken not to raise the heat to 103deg., for at the beginning of incubation such a temperature is far too high. The eggs ought not to be affected violently by introduction to such a heat, which covers them with a moisture, causing when it dries an evaporation of the liquid contained in the egg and occasioning a desiccation of the shell, which undergoes a chemical transformation, subjecting the embryos from the beginning to an unnatural process. In my establishment the eggs are placed in a receptacle, which lack of space forbids my describing here, where they are gradually warmed for a few minutes every day—as does the hen when she goes to lay in her hidden nest—adding egg after egg and warming the older ones then introduced into the incubators. By this means their vitality is marvellous, and I avoid a too rapid starting up of incubation. With the hen we may easily realise that when she sits on the cold eggs her own temperature has to fall, and that it is only by degrees that her eggs absorb the initial required heat of 103deg., and also that beneath the hen no sudden change of temperature nor hurried starting up occurs. We must follow as closely as we can the living model that Nature has given us.

After the introduction of our drawers full of eggs the temperature of our incubator will at first fall; then, by reason of the partial filling up of the machine and of the decreased cubic space of the air to be heated, as soon as the eggs have absorbed the heat, the temperature will by itself rise to 103deg. If this should not be the case after the lapse of twelve hours, our lamp should be turned up.

The eggs should be removed from the incubator for turning and cooling every morning and evening, but the same care and precautions should be taken not to subject them this time to a sudden cold atmosphere. It is easy to understand that in taking them out of the machines in which a temperature of 103deg. exists to place them in a room of only 30deg. or 35deg., this sudden cold will provoke too great a contraction of the embryo, which cannot fail to be prejudicial to the vigour of the chickens. To avoid this a piece of canvas should be put over the eggs.

Five or six drawers should be, for the rapidity of manipulation, taken out of the incubator and placed on a long, well levelled table, and never, as I have so often seen, placed on the top of the incubators. It is neither practical nor convenient, and may subject the machine to movements which are likely to disarrange the regulator. After the removal of four or six drawers, the first one should be uncovered and the eggs turned, and if they are sufficiently cooled put back into the machine; if not, they should be re-covered, this time with a lighter canvas, and the other drawers attended to. Too prolonged a cooling is also frequently injurious to the embryo. When the broody hen quits her nest no such sudden change occurs; the eggs remain in the deep and well sheltered nest on the warm bedding of hay or straw; this material retains the heat at the bottom of the nest for some time, and the eggs are gradually cooled. In artificial incubation cooling is obligatory, were it only to counteract the overheating which might have occurred in the course of incubation, and also to provide the embryo with fresh and pure air.

Airing and moisture are two very important, interesting and very much discussed questions. Although all the incubators are provided with ventilation holes (apertures) to admit the entry and outflow of air, this construction is vicious in most cases—putting aside a very few well constructed incubators which are less prejudicial than some others, and should be perfect, with small modification.

To be convinced of this false conception one has only to return to the natural model—the broody hen—and to compare every detail of both ways, artificial and natural, as I did, to find out that there is no reason why the chickens should suffer in their vitality in artificial incubation. To make those comparisons, time, money and patience have been necessary; I hope my readers may benefit from them. Thousands of eggs were incubated by broody hens, and thousands were incubated in several good and reliable incubators—some of them fitted with a tank (hot water),

some of them heated by hot air, some having a moisture device, some without—and the results closely compared. All the eggs were of the same origin and freshness, set the same day. They were looked through (tested) by electricity every day, scores of eggs were sacrificed at every period of their life, and carefully examined, dissected, weighed, etc. In no case were they developing in artificial incubation like those under natural conditions; they were too dry or too full, and the shells subjected to a more severe chemical transformation. The observation of these points inspired me with the desire to try to solve those much discussed questions:

Why were they too dry or too full? Must we give them moisture? How is it that with a hen it is not required? Must we admit more or less air (draught) into the incubator? Why are incubators so constructed? Is the contaminated air enclosed in an incubator injurious to the chicks? etc.

Here are some answers and results of my experiments and conclusions without going into minute details and too long explanations. No incubator should permit the intake or emission of air. It is the certain cause of the evaporation of the liquid contained in the eggs, as well as a great cause of so many dead in the shells, and crippled chicks. The fact that many constructors introduce a receptacle full of water in the incubator, or other moistening device, shows that they are well aware of this drawback. It is to compensate for the dryness of the atmosphere, subjected to a more or less perpetual draught, that they have to do it; but unless we have recourse to the "air cell test" advocated by American people it is difficult to regulate moisture. When too much is given, the egg, full of liquid, bathes the chick and enables it to move and turn in the shell. If not enough moisture is provided, the air cell gets enlarged, the membrane which is around the chick shrinks and encircles it in such a way that it prevents not only its development but its breaking through the shell. As far as the air cell test is concerned, it requires time for examination, much too valuable in a big establishment, and judgment which can be at fault and cannot be relied upon.

What does the hen do in natural incubation? Not only by the natural formation of her body does she, by placing the convexity of her breast into the concavity of the nest, prevent cold air reaching the eggs, but when her nest does not appear to her deep enough, or the eggs on the outside seem too much exposed to the cold, she takes the hay or straw of the nest with her beak, and by a move of her neck from side to side brings her warm bedding over her wings, covering them so completely as to exclude all access of air. Under her there is no draught; even when she turns her eggs over she does not rise—she rolls herself in the bottom of the nest, thus changing the position of the eggs. We may realise still more that Nature does not desire the evaporation of the liquid in natural incubation when we see that the eggs coming in contact with the skin of the hen are covered with a thin coating of fat, which renders them bright to the eye and soft to the touch. This glaze fills up the pores of the shell and prevents evaporation when, during the absence of the broody hen, they are exposed to the air. It also modifies the chemical change of the shell. On the contrary, in artificial incubation the eggs are hard and rough to the touch; so brittle do they become that the slightest shock produces cracks which, though imperceptible to the naked eye, cause the embryos to perish in the shell.

The fact that the constructors find it necessary to build their machines with ventilation holes, although they know the consequences, leads me to think that they believe in the absolute necessity of evacuation of gases and carbonic acid which emanate from the chicks during incubation, and in the necessity of admitting fresh air and of purifying the contaminated atmosphere.

A very striking fact that happened in my house made me determine to thoroughly investigate the question of pure air, for I had the proof, not only by the fact here related, but by numerous experiments, that the question of fresh air had not the importance that is generally thought. Some years ago, before the undertaking of poultry keeping on a paying basis, I had entrusted to my lady companion the care of my last broody hen, under which we had just placed a second batch of eggs. Returned from a journey, I went to see the broody hen. As soon as I entered the yard in which she was set, I was struck by a strong and vile odour which infected the whole atmosphere around. An unsound egg must have been broken under the poor creature; she ought to have been moved and the nest cleared out, but the chickens were due that day. I decided to wait, convinced that nothing alive could come out of such an atmosphere—

infected, I was told, since the commencement of incubation. Two days later I learned that thirteen fine and vigorous little chickens were walking about with their mother. I had the nest examined, and found beneath the straw a crushed and decomposed chick belonging to the first brood. What, then, of the theory of expulsion of gases, of contaminated air, etc.?

Biology has taught us long ago that the lower the life of the embryo the less is the need of oxygen, but this fact proved it practically. I wanted to have it proved scientifically, and for this purpose I had an analysis made of the air underneath and around the broody hens and, at the same time, of the air enclosed in the incubators, the apertures of some of which for this purpose had been closed, and also the incubator rooms. Much the same gases were discovered, and about the same high percentage of carbonic acid.

If these gases—so poisonous even for human beings—did not hurt the embryo, why drive them out with those injurious and drying draughts? Is it to provide the chicks with air? They must evidently breathe in one way or another, unless admirable Nature has provided for this as well as it has provided for moisture in the eggs. May it not be that either the egg cell contains enough air for the tiny creature, or that the contraction of the chicks exposed to the cold provokes a suction through the porous shell that renews daily its provision of fresh air? Or again that the blood is oxygenated when cooling by means of the temporary lungs (allantois) which are placed directly underneath the porous shell. At all events, as the poisonous air is not hurtful, we must conclude that either the chick does not breathe the outer air, or that the porous shell is so constituted as to filter the air of its impurity. I leave it to scientists to demonstrate which of these hypotheses is the most probable, whichever it may be.

Once convinced that the presence of these gases was not injurious, and that underneath the hen the chicks renew or absorb fresh air only during the absence of the mother, I began to experiment with incubators hermetically sealed, allowing them to breathe fresh and pure air only when cool. The results were such that I continued to close the apertures.

After thousands of eggs had been successfully treated in this manner I published the facts. They gave rise to violent and heated discussions in the columns of several papers. My method was tested by many, and by a very old Benedictine, a scientific expert, who used to incubate thousands of eggs annually. He experimented at first with 4,000 eggs, and wrote that he had never before obtained such a high percentage of rapid and easy hatching chickens, without a single faulty bird.

We must bear in mind that in my method, in order to enable the chick to absorb the quantity of fresh air that may be required, my incubator rooms are in a perpetual draught and consequently very well aired. I should never permit such stuffy atmospheres as exist in many incubator rooms.

As soon as the apertures of the incubators are closed draughts are no more to be feared. Where incubators are worked out with the admission of fresh air, the more aired is the incubator room and the more draught passed over the eggs, drying out the liquid and altering the shell, the worse, naturally, will be the result.

As in artificial incubation some of the moisture emitted by the eggs is absorbed by the wood of the machine, I usually on the nineteenth day spray water with a special syringe underneath the nurseries—but on no account on to the eggs—in order to compensate for the absorbed moisture. This enables my little birds to be hatched rapidly and easily.

In the natural way the mother hen, when she is permitted to choose a place for a nest, will select a slightly damp spot. At the time of hatching the incubator should not be opened until the twenty-second day. All the chipped eggs remaining should be sacrificed; they are not worth keeping; they would never produce a profitable market bird. All delicate birds should be immediately killed.

Once the hatching is over, every nursery is brought separately to a table, and the tiny birds are placed in a big box, so practically conceived that 240 chickens go in twelve partitions. Then they are transferred to the brooder house and placed in their rearer in a few seconds. The eggs are tested by electricity on the third and the eleventh days in a dark place situated in the incubation room. Everything is arranged to save time; 400 eggs are tested in eight minutes.

Two words more before leaving the incubation question. Some incubators, after having been used for some years, are found less regular in their working. It has been attributed either to the regulator or to the dampness having worked into the wood. Certain reasons made me think that was not the case, and after thorough investigation I found out the cause. The wood does, indeed, absorb the moisture. The regulator is not at fault. The cause is much more serious. The dampness goes into the lining stuff of the double wall of the incubators. This warm dampness, combined with the disengagement of gases, encourages the propagation of tiny microbes which work into the wood and fall upon the eggs; these animalculæ make little holes, visible only by means of a very powerful microscope; they work into the shell, producing thousands of infinitesimal holes which destroy quantities of embryos when deep enough. To relate how I found that out would require too much space. The evil discovered, I sought for a remedy, which I obtained by dint of energetic fumigation, killing and eradicating the cause of the evil by this defensive measure. There are, certainly, other ways of removing it. I, for my part, adopted the one described above because it gave me the desired result and at the same time admirably disinfected my incubators.

We shall now follow our chickens to brooder house No. 1, and go through their first stage, then study their surroundings and explain some of the causes of English failures to produce table chickens for the market at a profit.

(To be continued on May 29th.)

LITERATURE.

A BOOK OF THE WEEK.

Hark To These Three! Talks About Style, by Sturge Moore. (Elkin Mathews.)

MR. STURGE MOORE is a poet, not known so well as he deserves to be. He sat at the feet of the Pre-Raphaelites, but has outgrown them in thought, although not in execution. Here in prose he discusses a topic of perennial interest.

At least, we think so, but in reality his genius is so very erratic that a plain man finds it difficult to disinter the argument. His three spokesmen are Alfred Cahil, a "nice boy" of five and twenty, who has written a novel; Vincent Brown, a cultivated solicitor who has been a social reformer, but is settling down into an art connoisseur and collector of drawings; and third and, presumably, the fount of wisdom, an elder named Stanton who has been "through it" during student days at Paris, but is now retired from the giddy world to a cottage six miles from a station, where he lives simply, paints and thinks. An interesting trio, but much too clever

for practical purposes! Their discursive brilliancy makes one long to be back to the elementary.

Obviously, the only fruitful discussion of style must be directed to the beginner. Its alphabet should be taught at school and taught to all. There is nobody, whatever may be his calling, who will not be rendered more efficient by a grasp of certain rudimentary principles of style, as that words are to be used with economy and discrimination, that each sentence should be the expression of a thought in words as few as is needful to avoid being obscure, that unnecessary adjectives, underlinings, points of exclamation, and so forth, are marks of ill-breeding—literary ill-breeding. Just as everyone has to learn how to spell and write, count and calculate, so this much of style is a necessary accomplishment. It will serve the ordinary uses of life, enable the merchant to write a compendious, unmistakable letter and the military commander a lucid despatch. But it is only a starting off place for the specialist in letters. And here it

is very necessary to be explicit. There are vast numbers of people who perform valuable service for the country and earn a respectable livelihood for themselves out of literary work, and yet make no pretensions to literary style. A skilled barrister often studies English more closely than he knows when considering how to place his case most convincingly before a jury. Darwin achieved a still higher result when setting forth the result of his scientific research with the single-hearted desire to be clear and sound. Historians of the Freeman school despise what they call those tricks of style which adorn the prose of Macaulay, Green and Froude. A journalist might as well go into a galloping consumption as to become an amateur of style. His end is achieved when he conveys his news or his opinions directly and impressively to his readers. The ordinary novelist, man or woman, whose main object is only to earn a respectable livelihood is well aware that it would be fatal to acquire a style. The multitude on whom he depends resent it.

Thus, by a process of elimination, we arrive at the chosen few to whom Mr. Sturge Moore's pamphlet is addressed. What we have to do with now is the person whose ambition is to add to literature. Before offering advice it will be well to define what he possibly can give. It is not in any ordinary sense knowledge. Even a Newton must have been aware that, although his devotion to research and the memory of his genius might win for him immortal fame, those pebbles of knowledge which he gathered on an endless shore were but starting points for others. "Art is imagination: style is happy imagination," says the oracle of Mr. Sturge Moore, and he is not to be contradicted. But we suggest that a far more fruitful and useful definition of style is the art of expressing individuality. That brings us back to Buffon, "Le style est de l'homme." It also causes a momentary collision with Stevenson's theory of the "sedulous ape." If the critics would but hark to this, they would learn to discriminate between the real and the unreal. There is nothing new in the doctrine. Goethe expressed it clearly when he said that in the world are many echoes but few voices. What is an echo in this sense? Stevenson was one himself. He pondered over a few authors—Laurence Sterne, the elder Dumas, Walter Scott—and learned to produce some of their effects, among them sentimental journeys with a donkey, adventures of John Silver, instead of D'Artagnan, Highlands and Highland moors, the kilt, the shieling, the broadsword, with characters that are like estrays from those sculptured on the Scott Memorial in the Princes Street of his native Edinburgh. An "echo" wins applause easily. He reads himself full of a great work—Shakespeare's Sonnets, for instance—and by annexing the Elizabethan phraseology is able to make an imitation that might deceive the elect. He begins by deceiving himself. The imitation must be unconscious or it will fail hopelessly. Blake recently has been a happy hunting ground of young poets, as Swinburne was thirty years ago. We all know the Blake echo, the Browning echo, the Swinburne echo. Everybody with literary tendencies begins with a mind chokeful of ideas gleaned from desultory and miscellaneous reading, which flow forth easily in the shape of a cup—it may be a champagne cup or a humble cider one, but in any case, is curiously compounded. It is inevitable that a huge majority of our professional writers should exist on what they have absorbed from their predecessors. Often enough the young writer who is going to do something entirely his own starts in the same way, but he writes and writes till the rubbish on the top has been cleared away and he reaches down to what is indisputably his own. His possession in the end may be trivial, merely a way of looking at things, but it is his own. Education, the power of writing bring him eventually to his own. Without them no one can set himself down on paper. As Froude had to acknowledge about Carlyle's mother, a woman of marked character, she disappeared in her letters to her son. They were but copies and echoes of other writers, generations of whom had written the same sort of letters to their sons. Thomas himself wrote a style that, judging by the ordinary canons, was atrocious, and yet was a great style because it was the expression of a remarkable personality.

All this tends to bring us into conflict with Mr. Sturge Moore, who illustrates his view of style by citing the following story:

A contrast has recently run in my head between the Chinese students and our suffragettes. The six who have passed highest in 1910 went into the assembly of notables and read a petition for a democratic parliament, then demonstrated their sincerity by discombobulating themselves on the spot. The notables wept aloud, carried the dabbled petition to the Gate of the Inviolable Palace, and waited there till a prince of the blood consented to

take it to the Emperor, who signed the drafted law besmeared with red from Martyr veins.

That has style compared with the goings on of our ex-ladies. Let me see if I can find the cutting.

The note is bizarre. It almost makes us doubt if Mr. Sturge Moore has the root of the matter in him. The students were following too closely the conventions of their country. Charles I, "who nothing common . . . did or mean, Upon that memorable scene," or, better still, Raleigh yielding his life with the panegyric on his lips, "Oh, eloquent, just and mighty death," had been an example more in the grand style. Probably Mr. Moore would object. "Ah, yes, here is one who would rather have been Sir Joshua than William Blake." Even so.

PATRIOTISM AND PROSE.

Anthology of Patriotic Prose, Selected by Frederick Page. (Oxford University Press.)

WE cannot honestly congratulate the editor and publishers of this work on having achieved a brilliant success. The imprimatur of the Oxford University Press is expected to carry with it a guarantee of merit, but it does not do so in the present instance. The book opens with a quotation from Hall's *Sentiments Proper to the Present Crisis*, a sermon preached on October 19th, 1803. It is written in a style hopelessly obsolete nowadays, and it is followed by a passage from *The Friend*, which Coleridge edited, which, to say the least of it, is very uninspiring. Wordsworth is very freely quoted from, but his prose is not up to the standard which should have been maintained in a book of this kind. It is too hard and metallic. On the other hand, Ruskin is drawn upon liberally at the other extreme. We cannot believe that anybody in such times of stress as we are going through will find much of a trumpet note in such sentences as this: "You ought to love your country, just as you love your father and mother; but you must remember that other people love their country, and their father and mother; and to be always praising your country and speaking ill of other countries is as if you were to say, 'Oh! my father and mother are very good people, but your father and mother are very bad people.'" But the strangest inclusion in this volume is a piece from Mr. Hilaire Belloc. This for completeness of misunderstanding is unsurpassable. Analysing the love of England, Mr. Belloc says it has in it the love of landscape and the love of friends, but "It lacks, alas, the love of some interminable past, nor does it draw its liveliness from any great succession of centuries." "All Englishmen," says Mr. Belloc, "are clean cut off from their long past which ended when the last Mass was sung at Westminster." A more ridiculous assertion than this could scarcely be put into print. After the last Mass had been said at Westminster in the reign of Henry VIII, England, under Elizabeth, was to begin a great new life. Then did Empire open, then did we attain mastery of the seas, and then did freedom of thought spring and flourish as it never had done before in this or any other country. But these are small things apparently in the estimation of Mr. Belloc, who, after the extraordinary assertion to which we have taken exception, illustrates what Pope calls the art of sinking—that is, makes a little incursion into the bathos, with the remark, "the love of England concerns itself with trees." It would be a very easy matter to make hay of every separate sentence in this extract, but the inclination to do so gives place to wonder that it should have been printed in an anthology of English patriotic prose. In a new edition it should be cut out, and with it nineteen-twentieths of the other contributions. The things of value are the "Let us now praise famous men," the extracts from Milton, the account of Sir Philip Sidney's address to the troops before the taking of Axel, and the extracts from Cardinal Mercier's Pastoral Letter. We ought to add to the list Sir Walter Raleigh's story of the Revenge. But snippets like the very conventional compliment which J. H. Newman paid to the character of an Englishman in his *Apologia pro vita sua* can only be excused as an act of homage or flattery paid to a great name. Fancy what would be the conception of Newman which was based only on the two extracts in this book!

Fifty-one Tales by Lord Dunsany. Elkin, Mathews.

THE war should purge our literature of brutality, and leave it gentler, calmer than it was before. In the old surfeit of peace we needed a spice of brutality in literature to make life interesting; but now the harsh, the bitter and cruel is discharging itself in life itself, and we turn to books not for extra horrors but for sanctuary. Lord Dunsany is probably in transition. He is a humorous and satirical tale-writer, whose salient characteristic is a sort of playful brutality, not very playful, not very brutal. He catches singing birds, ties strings to their legs and flies them—see how beautifully they fly!—but he delights to pull the creatures down with a jerk. When Fame says to the poet: "I will meet you in the graveyard at the back of the workhouse in a hundred years"; when Time says to the furniture-faker, "That is not my way," and plants a furrow in his brow; when Notoriety leads her worshippers to the Pit—these are nasty jerks, and belong, no doubt, to the time before the war. Some of the flights scarcely escape the author's fingers; others are a little longer. One or two give one the idea that the bird will get away. But you never forget that the bird is in the power of a wanton boy. A clever boy is amusing himself. One is inclined to say: "Cut the string and let the bird go away; then listen one morning, and you'll hear him singing in the clouds." Lord Dunsany almost lets the bird go once or twice, as for instance in his story of the mountains and the clouds.

"Said the mountains,

"We are the most imperishable mountains."

"And softly the clouds foregathered from far places, and crag on crag and mountain upon mountain in the likeness of Caucasus upon Himalaya came riding past the sunlight upon the backs of storms, and looked down idly from their golden heights upon the crests of the mountains.

"Ye pass away," said the mountains.

"And the clouds answered . . .

"We pass away, indeed, we pass away, but upon our unpasturable fields Pegasus prances. Here Pegasus gallops and browses upon song which the larks bring to him every morning from far terrestrial fields. . . ."

That being so, we may say to the author: "Let the lark go! We like to see it fly a little further than the end of your string; we like to hear it from those clouds." Lord Dunsany has a singing heart, and all will listen when it gets free from mockery and satire.

Twenty Years of My Life, by Douglas Sladen. (Constable.)

MR. DOUGLAS SLADEN has had a varied, interesting and successful life: he has written many books and seen many lands and things, but he will probably be best known as the only begetter of "Who's Who," which is, as we imagine, one of the most famous books in the English language. Anyone who could invent "Who's Who" must have a genius for writing and journalism of a "personal" character, and Mr. Sladen has turned it to good account in this book. First of all at Oxford, then in Australia, Japan, America and Canada, and finally in London, he has known innumerable noteworthy people; so many, indeed—most of them, but by no means all of them, connected with art or literature—that they have a special index all to themselves, beginning with Prince Alamayu of Abyssinia and ending with Mr. Zangwill. The author has, of course, plenty of good stories to tell about them all. He has also had the entertaining notion of asking some of his friends among authors what set them first of all to writing. We may take Sir Arthur Conan Doyle's account of his early experiences as a particularly interesting one. In 1878, when he was nineteen, he wrote his first story

and got three guineas for it. For the next ten years he earned on the average about fifty pounds a year by writing. In 1888 he wrote "A Study in Scarlet," sold it lock, stock and barrel for £25 and never received another penny for it! Then there quickly followed "Micah Clarke" and the Sherlock Holmes stories in the *Strand*, and his fortune was made; but he had a time of waiting long enough to encourage young authors.

The Pagans, by Mrs. Hugh Fraser and Hugh Fraser. (Hutchinson.)

THERE is nothing here to shock, nothing which would electrify even the mildest of our present-day broad-minded curates, beyond giving him a pleasurable sense of the wickedness of what he would doubtless call "society." There is also very little, we think, which the impatient reader would call "boring" or "slow," and nothing which anyone would find unduly "sentimental." Here, then, we have the average novel, created for the average mind. Well, demand is the great excuse for supply, and it is to fit such depressing axioms as this that we are constantly compelled to lower our standards of literary excellence. Such novels remind us of Madame Tussaud's. There are the waxworks jaded and remote, but yet superb in their right of sway over the British imagination. Here is the designing woman whose beauty is on the wane, but whose appetite for intrigue increases with every hour she spends in her husband's wake. Here is the faultless but yet surprisingly worldly-wise *ingénue*; yonder is the man of action, spiritually a cripple, but physically all too strong. How well we know them all. How glad we ought to be to meet them again, and yet—are we really any of us sincere in the cordiality with which we greet them? Are we not merely terribly polite?

THE LAND IN WAR TIME.—III.

WOMEN WORKERS ON THE FARM.

BY THE MARCHIONESS OF LONDONDERRY.

WAR service for women" is an attractive phrase to many who are anxious to help their country in the hour of her greatest need. There are many opportunities. Some will volunteer as nurses, some to make munitions of war, others to take the place of men in stores and so on. To my mind, every woman with a knowledge of some branch of agriculture, or with experience of and a liking for country life, should offer to work on the land. No one to-day denies the shortage of agricultural labour. Supply and demand only balanced before the war; now many thousands of farm workers have answered the call to arms, and the industry is faced with large gaps in the ranks of its labour. True, the country boys and the Belgian refugees have in some measure met the demand, but not in sufficient numbers, and as the summer and autumn comes, so will the demand increase for labour on the land.

In this time of war, more than in peace, it is essential that our home production of food should not decrease. We are not, as everyone knows, a self-supporting nation in matters of food, and though our Navy has succeeded in keeping open the routes of our big grain and food ships, the war is bound to disturb the normal flow of food to our shores. Certainly during the existence of this condition we must not allow our home production to decrease; rather we should endeavour to bring about an increased supply. It can only be accomplished if sufficient labour is forthcoming; and when our men have gone to the war the country must turn to its womenkind. Let no one think that in asking women to work on the land we are suggesting the impossible or seeking to establish a system that the country has never known. I have read letters and articles in the Press lately condemning the suggestion. Women are unfitted for farm work, the hours are too long, the conditions of labour are debasing, the labour is degrading—those are the nature of the criticisms. I confess to feeling some astonishment. I consider the hours and conditions of labour in the shops, factories and workrooms of our large cities and industrial centres, and I deny that the balance is against work on the land.

In Scotland and in the North of England women work on the farms, and have worked there for generations. No one questions their ability or their capacity for agricultural work. As we come south the custom dies away, but only in recent years. It is not beyond the memory of the older people when women were engaged in farm work in the Midlands and Southern Counties. I am not going into the causes which produced the change, and I do not seek to question the right of the younger generation to work out its life in its own way. There are many who regret the rural exodus, and would endeavour to check it by reforms and alterations in village life.

We are not seeking to-day to change the habits of a

people. War is no time for social propaganda. At its conclusion it will leave us a legacy of new problems, and their solution will require all the attention and energies of reformers. At this moment we are organising to meet an emergency. If we were almost a self-supporting country, as Germany, the urgency of the present problem would be impressed upon every one of us, and, as in Germany, every acre of land capable of producing foodstuffs, even the strips along the railway, would be under cultivation, and tended by women and men incapable of the sterner work of war.

The question, none the less, faces us if our home production is only to be kept to the normal level, and I advocate the employment of women on the land because I know of no other reserve of labour sufficient to fill the shortage without assistance, and because I know women can do—in many places are doing, and for generations have done—farm work. I am not proposing—as some of my critics assume—that every woman should work on the land. To some it would be thoroughly uncongenial, to others physically impossible. And I do not suggest that women can perform every kind of farm labour. Of course, much is naturally beyond the powers of the strongest; but I do object to the critic who denies that women can do any farm work, and assumes that work in factories and shops is less fatiguing, healthier and uniformly more suitable for women. To the city-bred woman, employed in an office or shop, I would say, "Stick to your occupation or, if you want to help in war work, volunteer for work not unlike that to which you are accustomed." To the enthusiastic, inexperienced volunteer I would counsel reflection. I would advise them that as a worker country life will not be a delightful holiday; that it is not always summer; that the sun does not always shine; that the wind can be cold, the roads muddy, the nights long, the hour for rising early, and that the cows want milking seven days a week. If she is then still willing to go, is physically fit and eager to learn, I cannot but think that, though inexperienced, she may prove to be a useful and valuable worker on the land.

There are, however, other women workers to whom the appeal can be more particularly directed. First, the trained women. Year by year agricultural colleges and institutes are training women for farm work. The women adopt it as a career. Living in the country, they have attended the classes with the intention of being able to make themselves useful at home. To these trained women the opportunity offers itself now. Dairy workers, milkers, poultry keepers, gardeners, bee keepers are only some of the posts for which women are wanted to-day. Then there is the country woman, born and bred. Though not trained, perhaps, at least she is not inexperienced, for she knows the country, its life and the demands which farm work makes upon time and energy. She should surely come forward in this crisis; and she is likely to prove an asset to the movement, for she

is unlikely to pine for the attraction of the city, finding country life dull and monotonous.

There is, too, the country-born woman, now living in the town. Does she never hear the country calling? From my letters many do, I know. And she, too, can help, for, like her sister who still lives in the country, she knows its attractions and limitations, and she is not inexperienced in farm work or bewildered by the novelty of her surroundings.

To women of these classes particularly I appeal. No one realises more than I that the movement is surrounded by difficulties. Farmers who have had no experience of women workers are reluctant to employ them, and when they do, find it difficult always to remember that they are not dealing with men. Housing questions, too, arise, and the women will have to find their place in the daily life of the village and farm; the wages question has to be dealt with; and the critics who charge us with a desire to exploit

women at the expense of male labour have to be answered. All these questions are usual to any new movement. They must be met, but no objection is so insuperable that it cannot be overcome with care and tact. For my part, speaking from the experience of the last two months or so, I feel assured that the movement can be successful, and that the women who undertake the work will not regret the experience. Also they will have the satisfaction of knowing that they have helped the country through a critical time and our oldest industry to face an unexpected situation.

Should any of your readers be ready to employ women on their estates or farms to fill vacancies caused by their men enlisting, or should they wish to offer their services for work on the land, I should be glad if they would communicate with me at 25, Victoria Street, S.W., when I will see that, so far as the association, of which I am a member of the committee, is able, their wishes shall be satisfied.

E. LONDONDERRY.

VIEWS OF OUR CORRESPONDENTS.

SIR,—I have read with interest the article by Sir Howard Frank. I am afraid I cannot offer any comments which will be of value, and I make no prophecy with regard to the effect of the war on land and agriculture after the declaration of peace. But I imagine farming will go on pretty much as it does at present, though I dare say the difficulty of procuring good labour will be increased. At present the prices all round for corn, hay, straw, horses and livestock of every description are satisfactory, and these prices will probably be maintained for some time to come. But there is another side to the picture, and people must not run away with the idea that farmers are enjoying unalloyed prosperity. Those who are buyers, and not breeders, will find a difficulty in buying livestock even at a high price; feeding stuffs are dear; labour is scarce, and rates are high. Nevertheless, I am inclined to think—as I hope—that tenant farmers will be able to hold their own. But I cannot take an equally cheerful view in regard to the position of landowners, because their burdens are increasing and will continue to increase, and rates, taxes, tithes and subscriptions eat up any profit which should be yielded by land as an investment. For the rest, I should not advocate the cultivation of sugar beet, which I have seen tried, under good management, but never with success; it is an expensive crop to raise, and I have been told that our climate is not adapted to it. I believe in the cultivation of fruit, and especially plums, in suitable localities. I have always regarded the building of labourers' cottages as indispensable to the successful management of a large estate. It is true that the low rent which a labourer has to pay will not suffice to provide a proper rate of interest on the outlay, but the advantage of housing a labourer on the farm is greatly appreciated.—COVENTRY, Croome Court, Worcestershire.

SIR,—I read Sir Howard Frank's article when you published it and agree with practically everything he says. It is early days yet to prophesy what may happen after the war; all that we, who are not at the front, can do now is to put our backs into the work of producing as much as possible. Certainly in this country the labourers are putting their backs into it and doing their utmost. What we now want is a little rain, and unless that comes soon the harvest here will be as poor as it has been the last three or four years. Summer rains seem to be a thing of the past in this country.—E. G. PREYMAN, Orwell Park, Ipswich.

SIR,—In reading Sir Howard Frank's article on the above subject, one cannot help feeling strongly, from the fact that it appears to me, as a business man, the land of Great Britain requires business brains upon it for the purpose of developing its riches, and this development must give a return of capital as good, or almost as good, as that to be obtained from successful manufacturing and industrial businesses, such as I have been familiar with.

As a landowner, it was not until I retired from commerce that I was able to give the time to trying to find out why my investments in land, when purely agricultural, gave such a small return in money. It is, of course, true, as Sir Howard Frank points out, that there is great pleasure to be obtained from landowning; but for the true development of the land in this country we must make it highly profitable instead of, as at present, barely profitable and pleasurable. Agricultural landowning and development must be for people who want to make money as well as for those who have made it or who have inherited it.

Now to deal with some of the points mentioned by Sir Howard Frank. He says the British farmer is conservative, but "keen and open minded enough when it can be brought home to him that he could make a better profit by some new method of cultivation." This is correct, but it is not sufficiently the business of either the Government or landowners to carry out the necessary experiments to show farmers where they really can make money—and when I say make money, I mean make it as fast and in equal quantities to that which the same energy and intelligence would achieve in many other directions than farming. True, there have been many useful and valuable experiments made by agricultural colleges and others, but few of these have a direct bearing or example on the pounds, shillings and pence of the matter, and it is only by being able to prove conclusively that more money can be made in a certain direction that farmers can be induced to leave many of their present methods with their meagre rewards. I am, of course, particularly referring to pre-war times, and assuming that wheat, soon after the war finishes, will drop back to the previously unprofitable

price in the greater portion of the country. Every person will, I think, admit that unless wheat can be sold for round about 42s. a quarter in this country, there is no serious amount of money to be made out of farming in most parts of Great Britain.

Now, in regard to Sir Howard Frank's reference to the question of wages, he truly says "that there are plenty of men now working on farms who are slow, inefficient and devoid of initiative, and they probably receive all they are worth." This is true; but if others will try, as I have been trying, the effect of paying men more wages than has been usual, after going into the question of cost of living in the district, they will find that the bulk of their labourers were insufficiently paid to feed themselves and their families with the necessary amount of nutritious food to give a really energetic day's work. I have found, in the cases of men who will really apply the increase of wages to the benefit of themselves and their families, that their homes are improved, their children and themselves not only physically better but mentally, and I am quite satisfied that a vast amount of the slowness of the country labourer is due to inefficient nutrition. Landowners have got to take the trouble to find out what is necessary to keep the men and their families properly nourished, and they have got to pay at least this minimum amount, which is a considerable percentage higher than is at the present time usual. My experience is that they will be both gratified and amazed at the improvement in a few months in the bulk of their men and their families.

In reference to the fact that agricultural landlords are upbraided for not rebuilding cottages, I think that they should be scolded for this. It is perfectly true that those who own land have to pay heavy rates and taxes, that they receive little rent for the cottages, etc. Those who own land must expect these responsibilities, and must either use their own brains or employ better ones, if they cannot use them themselves, or have not got them, to teach them how to put their estates on a proper business footing, and how the land can be made to produce sufficient so that the tenants can pay bigger rents and the landlord have more money to spend on the necessary upkeep and building of new cottages and new farm buildings. How can a tenant farmer farm properly when his land is improperly drained and his buildings in a state of disrepair? Equally, how can a landlord do his work if a tenant does not pay sufficient money to allow it to be done? A landowner must do as one has to do in a business; if the profits are not large enough to allow of proper upkeep of machinery and tools, he has either got to find out how to increase his profits or get out of business, and this is what will have to be done to those who own land before this country reaps the full advantage of its land and finds the necessary amount of work for the vast numbers that ought to be employed on it at wages almost as high as town wages, and able to give the land worker such luxuries and necessities that the skilled townsmen obtain. In my opinion the skilled worker on the land is not one whit behind the skilled worker in the factory or workshop. The main portion of my life has been passed in close touch with the workshop and factory of the worker. The individual land worker is equally skilful, and does the bulk of his work without the supervision of a foreman constantly at his elbow. The fact that he does so much good work, in many cases really only for the satisfaction of his innate craftsmanship, is a wonderful proof to me of the good that there is in the worker on the land. But we cannot keep him there. We shall lose every good man unless we find out the ways and means to enable him to be paid more money.

In regard to Sir Howard Frank's suggestions: Clause 3 I thoroughly agree with. There should be proper and definite Government encouragement, but this must be done not in the way of examples merely—it must be done by actual farms run under Government control in the way that farming experts tell us the things should be done, and the balance-sheets of these enterprises must be published every year. Until this is done, no practical farmer will copy departmental experiments of which the proper balance-sheets are not shown. I believe one of the serious drawbacks to the advancement of farming is the fact that the successful farm is not ear-marked like the successful business. The latter is generally a limited company; its accounts are published each year, and immediately a particular line of industry is seen to be remunerative, many others come into the business; competition gets keen, and keener, and the keenest brains are seen to remain at the top. In farming, the successful ones are seldom known out of their own local circles, and in many cases not even then, as the farmer likes to keep his success to himself and is not one to blaze abroad any particular line in which he has struck increased profits. Therefore

the methods of making increased profits must be developed by landowners, the Government, and other people who are prepared to tell the world how they make profits. The individual farmer, as a whole, will not do it, but will keep his methods of success to himself.

Clause 6.—I thoroughly agree with this, and there is no doubt that, owing to the shortage of horses that must be for a long time, the motor plough is a necessity, and it will be the one method by which a vast economy in the cost of ploughing will be achieved. On my heavy weald clay I use an Ivel Tractor. It does the work of nine horses—and our land is three-horse land—and does it 50 per cent. faster. Our land is of that unpleasant sort that you have to catch absolutely right, and with the tractor we can go on working for fourteen or fifteen hours if necessary. It does not appear to tire the men; and if we had to, we could use acetylene lamps and plough the twenty-four hours round with two sets of men. I also find that the introduction of machinery of this sort is very beneficial to the country mind, as a piece of work done with this looks as if something had been accomplished, whereas a ploughman with a team of horses does such a very little in a day. On our land three-quarters of an acre is about a day's job, and this looks a very little piece on a big field; in fact, almost dishearteningly small.

Clause 7.—Undoubtedly there is a great deal of land out of cultivation that ought to be reclaimed, and it is also true that many landlords have considerable areas now used for sporting purposes who would like to profitably employ such land. Curiously enough, my most successful experiment has been attacking this problem. I hated to see a lot of land simply growing hazel, which to-day is practically of no value and barely pays the cost of cutting. To anyone who has land which wants reclaiming, from the point of view of it having had all the goodness taken out of it, or rough woodland which can be shorn of its undergrowth, keep pigs there is my suggestion. Their manure, with the addition of lime, for a year or two will give you land which will then grow anything, and in the meantime you have made your land valuable and at the same time made a very nice little profit on a relatively small capital expenditure, and a profit which at the present time is far better than can be made out of large farming operations. True, it is breeding pedigree stock; but one must remember that the pig population of the world has been enormously reduced and it will take a long time to get it up again. But the beauty of it is that, even if the pedigree sales fall off, the ordinary pork and bacon trade is still going up, and although one's profits might be reduced they will still be substantial, because my figures include the period during which sharps and middlings have been so dear, and that has been my main food for the pigs, and I have also taken my selling prices considerably below what I get myself. I am assuming a merely good herd of pedigree Large Black, and not one like mine, with so many Royal Show and other big show winners. Before the war I could have sold many times the number of pigs I could produce for export to various foreign countries, and it is quite clear to me that this trade will be bigger than ever after the war. The following figures give an idea of what can be done, but I have eliminated from it pigs sold at very high prices, the direct descendants from Royal Show winners. I have just taken prices at which really tip-top individual pigs can be sold, but not necessarily of Royal Show winning strains.

PEDIGREE LARGE BLACK PIG HERD: CAPITAL ACCOUNT.

EXPENDITURE.	£	ASSETS.	£
Cash	1,300	50 breeding sows at £15 ..	750
		4 boars at £25	100
		50 houses at £6	300
		Wire fencing	100
		Troughs and feeding utensils ..	50
	£1,300		£1,300

PROFIT AND LOSS ACCOUNT.

Food for 50 sows, £8 each per year	400	Sales—550 pigs at £3 ..	2,750
Food for 4 boars, £10 each per year	40	10 sows at £7	70
Food for 600 young pigs for six months each, including time with sow	1,200	2 boars at £5	10
Attendants—1 man, 2 boys ..	155		
Rent, 5s. per acre on 100 acres	25		
Interest on capital, including depreciation, 20 per cent. per annum	260		
	£2,080		
Balance profit	750		
Total	£2,830	Total	£2,830

So far I have not been able to get such good results with some other breeds, although I have a large herd of Middle Whites, but they are also reasonably profitable. I reckon that two farrows per year, and an average of six pigs per farrow, is putting it very low indeed; but I am anxious, in putting this forward, to put everything at its worst, and although I reckon out of each fifty sows to eliminate ten per year and two boars, in practice I keep fifty pigs against this each year to make up a wastage which really only works out at about twelve.

Of course, for a long time now we have been getting much more money for old sows and old boars than the figures I have put down. As I improve the land, I then charge a higher rent per year; but against this, for two or three months in the year far less food is required for sows, as such a splendid crop of grass and clover gradually results. You will see no allowance whatsoever has been taken for the manure or improvement in the land.

I have done a great deal of work with chickens, and shall hope to experiment with the system now being expounded in your paper; but so far my chicken work has shown me that the man who can keep chickens successfully can make more money for me by keeping other stock. Chickens are exceedingly hard to keep successfully; they require such an enormous amount of detail work, and then, the turnover is so relatively small, even when large quantities are reared.—S. F. EDGE, Gallops Homestead, Ditchling, Sussex.

CORRESPONDENCE.

THE AMERICAN SOLDIER'S POEM.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—In a recent number of COUNTRY LIFE you ask for information about the author of the poem, "In the Hospital." It was written by Mary Woolsey Howland, the wife of Robert G., or Robert S., Howland, who died in 1887. She has also, presumably, died before now, but no recent book of reference gives any information about her. The "Treasury of American Sacred Song" gives a poem by her, entitled "Requiescam" or "Rest," possibly the same as "In the Hospital." Bryant's "Library of Poetry and Song" gives another entitled "First Spring Flowers." Probably these two anthologies could be found in your larger public libraries, such as the British Museum.—(REV.) ROBERT BARBOUR, Montclair, N.J.

WOUNDS AND FRESH AIR.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—It is fitting that one of the first of the open-air hospitals for the wounded should be inaugurated at Cambridge, because it will serve as a slight memorial to the late Professor Humphry, who strove hard to break down the old tradition with regard to the covering of wounds. Those who had the inestimable privilege of attending his classes at Addenbroses will remember how fond he was of laying stress upon the fact that what a wound needed most was fresh air and light. Anyone who has seen the difference in the behaviour of wounds and injuries in Australia and London cannot help being absolutely amazed to find all the biggest operations being done here in stuffy, old buildings in the most crowded parts of the city. It may be a necessity for hospitals to be placed in the centres of population, but it is to be hoped that the day is not far distant when hospitals for operations and the wounded, and private nursing homes will be found in the fresh air of the country.—OLD CANTAB.

THE BEST STORY OF THE WAR.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Most people will agree that the soul-stirring account of the Neuve Chapelle engagement ranks easily as the best story of the war. To read it made the blood dance even in the tepid veins of middle age, filling us with joy in the pride and glory of British arms, and we shall be much surprised

if it failed to bring a rush of recruits to the standard. Last week, in reviewing the "Eye-witness's Narrative of the War," you referred to the anonymity of the publication, and part of the story may now be told since no confidence is betrayed. The writer was Mr. Valentine Williams of the staff of the *Daily Mail*, and when the account reached London, Lord Northcliffe, with a nice sense of the fitness of things, handed it over to the London News Agency for general distribution. Thus, instead of becoming the monopoly of two papers, it was made available for all who had the discrimination to use it. Strange to say, three or four leading provincial dailies omitted to give it to their readers until a day late.

Reading between the lines, it is fairly obvious that this is not so much the description of an actual eye-witness as a compilation from various sources of official information, since one man, unless omniscient, could not have viewed the whole operations. In saying this, one is not in any sense detracting from the high literary merit and substantial accuracy of the work. Mr. Williams gave us a vivid piece of writing ranking with anything ever achieved by the great masters of bygone days, when the war correspondent was a recognised feature of operations in the field.

The pertinent point for consideration, however, is concerned with the future. To the lay mind nothing appeared in this article that could possibly benefit the enemy, while much was said that the public delights to know, and the regiments that fought so gallantly at Neuve Chapelle will be moved to further fine deeds by the consciousness that justice has been done them. In criticising the sternly repressive measures of the Censorship, the Press has been met with the rejoinder that it is wishful of benefiting its circulation while a more potent fact has been overlooked. If anything published about the war serve to drive up circulations, it is a sure proof that it is what the public wants. All along, in spite of the dreadful list of casualties touching intimately so many homes, there has been a sense of unreality about the war which we have not yet realised in the manner that it is realised by the French and Belgians, and I suggest, with all deference to the authorities, that much of this is attributable to the mystery that shrouds the proceedings. We ask for no information deemed to be inadvisable by the Headquarters Staff in France, or that is not approved by the War Office; but if the war is to be made more actual to us at home, we need more descriptions on the lines of that under notice—descriptions dealing within a reasonable period with events that have happened, without divulging methods of preparation that might conceivably give pointers to the enemy.—S.

THE PRONUNCIATION OF TRAFALGAR.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Some years ago, being curious to know the correct pronunciation of the word, I sent up a query to *Navy and Army Illustrated*. The answer they gave then was that the Spanish pronunciation lays all the stress on the last syllable, and for years after the great naval battle it was so pronounced in this country. The present way of speaking the word is considered the English method.—R. F. H. CREWE.

HOME AGAIN.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Here is a photo of a soldier home on leave. It shows, at any rate, that, apart from the risks of war, the strenuous, hard life our men are leading now



FIT, IN SPITE OF WAR.

does not seem to affect their health for the worse.—G. C.

NAMES OF TRAWLERS.
THE EDITOR.
SIR,—Your last week's very interesting photograph of a colony of African weaver-birds reminds me that one species, the *amadavat*, of this large family has given its name to a British steam trawler. Now that these little vessels are playing so gallant and distinguished a part in the present war, the story of how the boat came to be so named may be of interest. Some years ago a gentleman named Chant, then resident at a port on the North-East Coast, was anxious to sever his connection with existing business arrangements and become a trawler owner. Wishing to give his first boat a commemorative name, he christened her the *Chanticleer*, dropping one letter only of the three words. "*Chant* is clear"! Succeeding additions to his fleet were all named after birds—*Albatross*, *Pelican*, etc. Having one day occasion to consult the dictionary, he noticed the name "*amadavat*." "That's a good name; it'll just do for our next boat"; and to-day the *Amadavat* is familiar to many a Plymouth man—the business being now carried on from that port—who would be puzzled to give the derivation. Just nineteen years ago, on June 17th, 1896, the *Chanticleer*, then a new boat, entered the Barbican at Plymouth on her return from a trawling trip to the Bay of Biscay, and reported having passed drifting wreckage which seemed that of a liner. Her captain's surmise was but too well founded; the wreckage was that of the *Drummond Castle*, which had struck the rocks off Ushant on the night preceding and gone down in five minutes with all on board but three. To-day I never see the now terribly familiar head-line, "*Trawler Sunk*," without hastening to assure

myself that the *Pelican*, on board of which I spent, a few years since, one of the most delightful cruises of my life, is still afloat; now fishing in the Bay and off the coast of Portugal, now heading past the Fastnet, Bull and Skellig for the Porcupine.—ARTHUR O. COOKE.

FAITHFUL TO A STRANGE NESTING PLACE.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I enclose a photograph I took on April 25th in our church here, in case you should think it of sufficient interest to reproduce and publish in one of the weekly issues. The light was bad, and the photograph is not as good as it might be, but the position and surroundings constitute difficulties. It is of a robin on her nest in the fold of a curtain. The door, near which the curtain hangs, leads into the south aisle from a narrow passage, in which the photograph was taken. On my right, and close to the curtain, is an iron gate, through which the robin flies in and out. All people entering or leaving the church pass quite close to, and many actually touch, the curtain. At the hours of services there is, of course, much movement round about the nest—the curtain itself swings to and fro, there is opening and shutting of umbrellas, scraping and rubbing of feet on the mat at the door, putting on and taking off of overcoats and waterproofs, and, above all, conversation. Then for hours and for days not a soul nor a sound near her. Nothing, however, disturbs her. This is the fifth year in succession that a robin has made her nest in this curtain. We assume it is the same bird every year.—SLIGO, Westport.



A CHURCH ROBIN.

"COUNTRY LIFE" COTTAGE COMPETITION: ESSEX TYPE.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I think your readers will be interested in the enclosed photographs of the pair of cottages which I have built at Newport from the designs awarded the first prize for the Essex type of cottage in your recent National Competition. The author of the winning design, Mr. (now Lieutenant) Hobbiss, estimated, in his competition particulars, that the pair would cost £300, which represents a shade less than 4½d. per cubic foot. This price was somewhat exceeded when it came to building, for two reasons. We found some old foundations when the site was uncovered, and I put in rather more expensive fittings in the way of kitchen range, etc., than were actually necessary for an agricultural labourer's cottage. Deducting these extras which cannot be regarded as normal, the cottages only cost £310 the pair, which I think very creditable. The conditions of your competition laid great stress on the importance of preserving local characteristics in design and construction. The walls were therefore parge-plastered with chalk lime-plaster, combed in the way which has been traditional for centuries in this neighbourhood. The roofing tiles and red bricks were made in the neighbourhood by the contractors, Messrs. J. Day and Son of Bishop's Stortford,

and I think that, as far as Essex is concerned, the experiment has shown that roomy and healthy cottages can be built at very slightly more than the ideal figure of £150 each, and yet follow traditional lines and preserve a seemly appearance. I may add that both cottages were let at once, at a rental which gives a fair return on the outlay. One cottage is already occupied, and the tenant is more than satisfied with its general comfort. Thus I feel that I owe to *COUNTRY LIFE* a most hearty vote of thanks for the initiation of the scheme and your share in what has proved to me a most satisfactory venture.—W. FOOR-MITCHELL, Quendon Hall, Essex.



THE "COUNTRY LIFE" COTTAGES AT NEWPORT, ESSEX.

ANTS INFESTING HOUSES.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Your correspondents may like to try the following recipe, which was found effectual in ridding a storeroom of ants: 2lb. alum, three or four quarts boiling water; stand on the fire till the alum disappears. Apply boiling hot to every joint or crevice in woodwork, floor and skirting boards with a small painter's brush.—A. B.

"RAZORBILL AUKS."

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I am sending a photograph of razorbill's "fondling" each other, which I thought might interest some of your readers. There were lots of groups of these birds sitting on the rocks the day I visited the Scillies, and by very slowly stalking this group I was at last able to get quite close to them with the camera, and by keeping quite quiet they very soon forgot all about me, and began fondling each other in a most affectionate manner. These birds are most clumsy when settling on the rocks; they come flying along with their legs straddling out and land on the rocks with a great flop. They are able to use their wings when under water. One day when the sea was very clear I saw "something" going at a tremendous pace just under the surface of the water. By the use of my glasses I could see it was a razorbill. It flew along for several hundred yards, then came to the surface for a few seconds, then down again it would go, and this it kept doing for about twenty minutes—in fact, it was still "at it" when I left. These birds leave their breeding stations about August, when they are said to go down the Atlantic some distance beyond the Mediterranean, and a great many enter that sea. They return again to the breeding station about May.—ELEANOR SHIFFNER, Wallands, Lewes.

MULES FOR WAR AND PEACE TIME.

[TO THE EDITOR.]

SIR,—I am enclosing a photograph taken at one of the various mule remount depôts round here, hoping you may consider it suitable for COUNTRY LIFE. I spend a good deal of time riding round our various depôts and also riding the mules, and I think few people realise (except just in this district) what an asset to the country this introduction of mules will prove to be. Nearly all the leading farmers round here say they intend to use them for farm work as soon as they can get hold of any Government "casters."—MAUD W. WYNTER.



COURTING-TIME.

A CHINESE WHITE CROW?

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I should be very interested if you could tell me whether a black and white rook is a common bird. I never saw one in England, but here they are comparatively numerous. They live and fly with the ordinary rooks and

have the same calls but they have white breasts and white rings round their necks. There are hundreds of magpies here; is it possible that they are a cross between rook and magpie? I have never seen them flying with the magpies.—M. D. T., Ningyuanchow, North China.

[Mr. Douglas Carruthers writes in reference to the above: "The 'black and white rook' which you speak of as living and flying with, and having the same calls as, ordinary rooks in Northern China is surely a jackdaw, and not a rook. The Daurian jackdaw (*Corvus dauuricus*), called 'Bai Lao-Kwa' ('white crow') by the Chinese, is a common bird in Northern China, and is in the habit of associating with flocks of *Corvus neglectus*, which is an Eastern and darker form of the common European jackdaw (*Corvus monedula*). The Daurian jackdaw has a white breast and collar, such as you describe; it ranges from the Siberian Altai to the Pacific, to Japan, North China and Mongolia. In Western Mongolia mixed flocks of the two species are a common sight. Further west the Daurians are in the minority, further east they make up the preponderance of the flocks. The only other member of the genus *Corvus* that you might have seen is a large crow (*Corvus torquatus*), which has a white nape to its neck and a white breast-band, but not a white breast. Crosses between rooks and magpies or jackdaws and magpies are unknown."—ED.]

A FERRET PICTURE.

[TO THE EDITOR.]

SIR,—The majority of people would, no doubt, consider the ferret as a useful rather than an ornamental member of society. The lucky snail-shot which I enclose shows the animal, I think, in a more flattering light, and rather suggests a bear of some pigmy breed leaving its den than a ferret emerging from a blank hole.—C. P.



AT AN ARMY MULE DEPOT.



THE WHITE FERRET DRAWS A BLANK.